

Question 1 of 247

Question Difficulty:

Hard

Mr. X complaining of severe itching for 4 days. He also noticed dark urine and pale stools. He has a long history of asymptomatic gall stones. Examination reveals jaundice and fever. Abdominal examination shows right upper abdominal tenderness. Investigation show:

Bilirubin	88 µmol/L	(2-17 µmol/L)
ALT	120 U/L	(8-20 U/L)
Serum creatine kinase	960 U/L	(25-90 U/L)

What is the most likely diagnosis?

- ☒ Pancreatitis
- ☐ Pancreatic obstruction
- ☐ Peptic ulcer disease
- ☐ Acute hepatitis
- ☐ Ascending cholangitis

- ☒ Pancreatitis
- ☐ Pancreatic obstruction
- ☐ Peptic ulcer disease
- ☐ Acute hepatitis
- ☐ Ascending cholangitis

Description

Ascending cholangitis is a bacterial infection causing an obstruction of the biliary tree most commonly from a gallstone, but it may be associated with neoplasm or stricture.

It is characterized by Charcot triad of symptoms consists of fever, right upper quadrant pain and jaundice.

CHECK ANSWER

END SESSION

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Question 2 of 247

Question Difficulty:

Hard

Mr. X with past history of liver cirrhosis presents with abdominal tenderness and distension with peripheral edema.

Ultrasound scan of his abdomen shows large amount of ascites. Investigations show:

Hemoglobin	8 g/dL	(13.5-17.5 g/dL)
Leukocyte count	15X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	160 mmol/L	(53-106 mmol/L)
Bilirubin	44 µmol/L	(2-17 µmol/L)
ALT	130 U/L	(8-20 U/L)
Serum creatine kinase	260 U/L	(25-90 U/L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	6 mmol/L	(3.5-5.0 mmol/L)
Ascitic cells	360/mm ³ mostly PMN	
Ascitic fluid SAAG	20 g/L	(11g/L)
Bilirubin	44 µmol/L	(2-17 µmol/L)
ALT	130 U/L	(8-20 U/L)
Serum creatine kinase	260 U/L	(25-90 U/L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	6 mmol/L	(3.5-5.0 mmol/L)
Ascitic cells	360/mm ³ mostly PMN	
Ascitic fluid SAAG	20 g/L	(11g/L)

What is the most likely diagnosis?

- ☐ Cholecystitis
- ☒ Acute pancreatitis
- ☐ Budd-Chiari syndrome
- ☐ Cholangitis
- ☐ Spontaneous bacterial peritonitis

Description

Spontaneous bacterial peritonitis (SBP) is an acute bacterial infection of ascitic fluid; it is usually a complication of liver cirrhosis.

It is manifested by rapid deterioration of liver cirrhosis (unexplained encephalopathy and worsening or new-onset renal failure) with peritoneal fluid with neutrophil count > 250 cells/ml (diagnostic).

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 1

Correct: 0

Incorrect: 1

Average Score: 0 %

Question 3 of 247

Question Difficulty:

Hard

Mrs. X is 22 years old was complaining of increasing tiredness, amenorrhea and itching. She drinks 5 glasses of alcohol every night. She has a past history of pernicious anemia.

Examination reveals scratch marks on her skin, spider nevi and mild jaundice. Abdominal examination shows hepatomegaly. Liver biopsy reveals cirrhosis. Investigations reveal:

Bilirubin	29 µmol/L	(2-17 µmol/L)
ALT	530 U/L	(8-20 U/L)
AST	380 U/L	(8-20 U/L)
Serum creatine kinase	176 U/L	(25-90 U/L)
Serum sodium	135 mmol/L	(136-145 mmol/L)
Serum potassium	4.4 mmol/L	(3.5-5.0 mmol/L)
Hemoglobin	11.5 g/dL	(12.0-16.0 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
SMA	Negative	
LKM1	Positive	
LKM1	Positive	
AMA	Negative	

What is the most likely diagnosis?

- ☐ Type I autoimmune hepatitis
- ☐ Alcohol hepatitis
- ☐ Type III autoimmune hepatitis
- ☒ Type II autoimmune hepatitis
- ☐ Primary biliary cirrhosis

Description

Autoimmune hepatitis present as acute or chronic hepatitis or fulminant hepatic failure. Symptoms of acute hepatitis include marked by fever, hepatic tenderness, and jaundice. Extrahepatic symptoms include secondary amenorrhea, Cushingoid features and hirsutism, arthralgia and pleuritis.

Type II autoimmune hepatitis occurs predominantly in children and affects young females and is associated with anti-liver/kidney microsomal type 1 antibody (LKM1). Type I affect both adults and children and is associated with anti-nuclear antibodies (ANA) and/or anti-smooth muscle antibodies (SMA). Type III is associated with soluble liver-kidney antigen.

CHECK ANSWER

END SESSION

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Session Statistics

Answered: 2

✓ Correct: 0

✗ Incorrect: 2

Average Score: 0 %

Question 4 of 247

Question Difficulty:

Hard

Mr. X who is a laboratory chemist was admitted to the occupational health department due to a needle stick injury whilst taking blood sample from a patient who is known to be hepatitis B positive.

He mentioned he had never been vaccinated against HBV.

What is the management to be offered?

- ☐ 2 doses of hepatitis B vaccine
- ☒ Immediate hepatitis B immune globulin and hepatitis B vaccine
- ☐ Immediate hepatitis B immune globulin and hepatitis B vaccine after 1 week
- ☒ Test for HBV DNA
- ☐ Immediate hepatitis B immune globulin

Description

Prophylactic hepatitis B immune globulin (HBIG) and hepatitis B vaccine given within 24 hours of exposure are indicated if the source patient is known to have active HBV.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 3

✓ Correct: 1

✗ Incorrect: 2

📈 Average Score: 33.33 %

Question 5 of 247

Question Difficulty:

Hard

Mr. X was complaining of progressive chronic cough, dyspnea and pleuritic chest. CXR shows elevated right diaphragm with free chest.

Abdominal ultrasound shows a single cyst measures 8 cm in diameter with a calcified appearance. ELISA test was positive for Echinococcus.

What is the management of choice?

- ☒ Percutaneous drainage
- ☐ Surgical removal of the cyst
- ☐ Metronidazole
- ☐ Albendazole plus mebendazole
- ☐ Liver transplantation

Description

Hydatid cyst is a parasitic infestation by a tapeworm of the genus Echinococcus granulosus. It affects people living near rural sheep farms.

It is featured by pressure effects in the liver causing progressive liver dysfunction, obstructive jaundice and abdominal pain or pressure effects in the lungs causing chronic cough, dyspnea, pleuritic chest pain, and hemoptysis.

Surgical removal of the cysts combined with albendazole and/or mebendazole before and after surgery is the management of choice.

CHECK ANSWER

END SESSION

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Session Statistics

Answered 4

✓ Correct 1

✗ Incorrect 3

✓ Average Score: 25 %

Question 6 of 247

Question Difficulty:

Hard

A nurse was investigated following a needle-stick injury while taking a blood sample from a patient infected with hepatitis B virus, her vaccination status is unknown.

Which test will provide the earliest diagnosis of hepatitis B infection?

- ☒ Anti-HBeAg
- ☐ IgM anti-HBc
- ☐ HBV DNA
- ☐ HBeAg
- ☐ HBsAg

Description

HBsAg is the first marker of acute HBV infection to appear.

CHECK ANSWER

END SESSION

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Session Statistics

📊 Answered: 5

✓ Correct: 1

✗ Incorrect: 4

📈 Average Score: 20 %



Question 7 of 247

Question Difficulty:

Hard

Mr. X is complaining of persistent lethargy. Routine liver function tests show:

Bilirubin	25 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	780 U/L	(8-20 U/L)
AST	1208 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

A hepatitis screen was sent to the LAB and the results show:

- HBsAg positive
- HBV DNA positive
- IgM anti-delta negative
- HCV RNA negative

What is the most likely diagnosis?

- ☐ Hepatitis B carrier
- ☐ Previous HBV immunization
- ☐ Chronic active hepatitis B disease without cirrhosis
- ☒ Acute hepatitis B disease
- ☐ Chronic active hepatitis B disease with cirrhosis

Description

Acute hepatitis B disease is manifested by positive HBsAg, HBeAg, IgM anti-HBc and HBV DNA. If the AST levels are higher than the ALT levels, the diagnosis of cirrhosis must be considered.

CHECK ANSWER

END SESSION

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Question 8 of 247

Question Difficulty:

Hard

Mr. X is complaining of anorexia, nausea and vomiting 6 hours after he had 60 tablets of paracetamol for committing suicide as he was depressed as he was fired from his job .

Examination reveals right upper quadrant pain and no focal neurological signs. Investigations reveal:

Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	120 U/L	(8-20 U/L)
Serum creatine kinase	123 U/L	(25-90 U/L)
Serum creatinine	123 mmol/L	(53-106 mmol/L)
Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
pH	7.32	(7.35-7.45)
Glucose	3.4 mmol/l	(4-6 mmol/l)
Prothrombin time	22 seconds	(1-13 seconds)

Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
pH	7.32	(7.35-7.45)
Glucose	3.4 mmol/l	(4-6 mmol/l)
Prothrombin time	22 seconds	(1-13 seconds)

What is the management of choice?

- ☐ Discharge home
- ☐ Activated charcoal
- ☐ Inpatient admission and follow up
- ☐ Gastric lavage
- ☒ N-acetylcysteine

Description

N -acetylcysteine is the management of choice, it replenishes body stores of glutathione, and it is given within 8 hours after an acute ingestion.

Gastrointestinal decontamination with gastric lavage is used within 1 hour post ingestion. Activated charcoal is less invasive and has fewer side effects than gastric lavage; it is used within 30 minutes - 2 hour post ingestion.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 7

Correct: 1

Incorrect: 6

Average Score: 14.29

%

Question 9 of 247

Question Difficulty:

Hard

Mr. X is complaining of diarrhoea and fever 24 hours after he arrived in India for a business trip. The diarrhoea is watery without any tenesmus or mucus.

Abdominal examination reveals global mild tenderness. Investigations are irrelevant. Stool microscopy shows no trophozoites, spores of giardia or parasites.

What is the most likely causative organism?

- ☐ **Campylobacter**
- ☒ **Salmonella**
- ☐ **Rota virus**
- ☒ **Escherichia coli**
- ☐ **Bacillus cereus**

Description

Escherichia coli is a gram-negative, facultative anaerobic, rod-shaped bacterium commonly found in the lower intestine. It is the most common cause of travellers' diarrhoea. Gastroenteritis is manifested by self-limiting watery diarrhoea with incubation period from 12-48 hours.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 8

✓ Correct: 2

✗ Incorrect: 6

📊 Average Score: 25 %

Question 10 of 247

Question Difficulty:

Hard

Mr. X is complaining of diarrhea and fever 24 hours after having a dinner in a road restaurant. The diarrhea is watery some blood. Stool microscopy and investigations all are free.

What is the most likely causative organism?

- ☐ Campylobacter
- ☒ Shigella
- ☐ Staph aureus
- ☐ Salmonella
- ☐ Bacillus cereus

Description

Infection with non-typhoidal salmonellae usually causes enterocolitis similar to that caused by other bacterial enteric pathogens with incubation period of 12-48 hours.

Bacillus cereus and Staphylococcus aureus causes food poisoning with IP of 1-6 hours.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 9

✓ Correct: 2

✗ Incorrect: 7

Average Score: 22.22 %

Question 11 of 247

Question Difficulty:

Hard

Mr. X is complaining of abdominal bloating, mild abdominal distension, flatulence and intermittent diarrhoea. He had past medical history of gastric cancer which he had managed by partial gastrectomy 2 years ago.

Examination shows he looks pale his BP is 135/70 mmHg, pulse is 85/min regular, general examination is unremarkable apart from a midline scar consistent with his partial gastrectomy.

Investigations reveal:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
MCV	108 fl	80-100 fl
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
Serum albumin	26	(35 - 50 g/L)

Which of the following is the most appropriate next investigation?

- ☐ Endoscopy of the gastric remnant
- ☐ Barium swallow
- ☒ Schilling test
- ☐ Stool culture
- ☐ Antitendomyisial IgA

Description

This patient has Bacterial overgrowth syndrome. It is a disorder of excessive bacterial growth in the small intestine. It is associated with structural abnormalities (congenital or surgical) or decreased gastric acidity. It is manifested by malabsorption, flatulence, abdominal pain, diarrhoea and dyspepsia.

The gold standard for detection of bacterial overgrowth is the aspiration of > 10x5 bacteria per milliliter from the small bowel. Malabsorption can be detected by the hydrogen breath test and Xylose breath test.

CHECK ANSWER

END SESSION

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Question 12 of 247

Question Difficulty:

Average

Mr. X is complaining of abdominal pain and fever for 1 month. He has no past history except attacks of bloody diarrhea for 6 months.

Examination reveals mild fever with no jaundice. Abdominal examination shows right-sided abdominal tenderness.

CXR shows elevated right hemidiaphragm. Abdominal ultrasound shows solitary cyst of air and fluid in the right lobe of the liver. Investigations show:

Serum creatinine	75 mmol/L	(53-106 mmol/L)
Hemoglobin	14 g/dL	(13.5-17.5 g/dL)
Leukocyte count	16.2 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	160 m/mm ³	(150-450 m/mm ³)
Neutrophils	11.5 X10 ⁹ /L	(2.5-7.5 x 10 ⁹ /L)
Lymphocytes	1.6 X10 ⁹ /L	(1.5-3.5 x 10 ⁹ /L)
Eosinophils	3.2 X10 ⁹ /L	(0.04-0.4 x 10 ⁹ /L)
ESR	8 1st hour	(10 1st hour)

What is the most likely diagnosis?

Platelets	160 m/mm ³	(150-450 m/mm ³)
Neutrophils	11.5 X10 ⁹ /L	(2.5-7.5 x 10 ⁹ /L)
Lymphocytes	1.6 X10 ⁹ /L	(1.5-3.5 x 10 ⁹ /L)
Eosinophils	3.2 X10 ⁹ /L	(0.04-0.4 x 10 ⁹ /L)
ESR	8 1st hour	(10 1st hour)

What is the most likely diagnosis?

- ☐ E coli liver abscess
- ☐ Schistosomiasis
- ☐ Hepatitis C
- ☒ Amoebic liver abscess
- ☐ Hydatid cyst

Description

Amoebic liver abscess is the most frequent extraintestinal manifestation of *Entamoeba histolytica* infection which ascends the portal venous system. It is manifested by fever right upper quadrant pain and bloody diarrhea.

Ultrasonography and CT show solitary abscess (unlike pyogenic liver abscess). CBC shows eosinophilia and leukocytosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 11

✓ Correct: 2

✗ Incorrect: 9

Average Score: 18.18 %

Question 13 of 247

Question Difficulty:

Easy

Mr. X complains of rectal bleeding and changes in bowel habit associated with feeling increasingly lethargic over the past 2 months. He has no past medical history and no family history of GI cancer.

Examinations show he lost 2 stone and looks cachectic and has pallor. Colonoscopy reveals single large ulcerative mass with necrotic irregular edge in the sigmoid colon. Investigations reveal:

Serum creatinine	88 mmol/L	(53-106 mmol/L)
Serum urea	5.2 mmol/L	(2.5-7.1 mmol/L)
Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
Leukocyte count	$8 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
ESR	88 1 st hour	(10-20 1 st hour)

What is the most likely diagnosis?

- ☐ Ulcerative colitis
- ☐ Simple adenoma
- ☒ Familial adenomatous polyposis
- ☐ Hereditary non-polyposis colon cancer
- ☐ Sporadic cancer

Description

Rectal bleeding and change in bowel habits associated with iron-deficiency anemia and very high ESR and irregular mass in the colon points to colorectal cancer.

Sporadic cases cause about 95% of all colorectal cancers. It may be due to environmental exposures (including diet), and inflammatory conditions.

Hereditary non-polyposis colon cancer syndrome is an autosomal dominant condition. It causes of about 6% of all colorectal cancers. It poses about a 40% lifetime risk for developing colorectal cancer.

Familial adenomatous polyposis (FAP) is an autosomal dominant condition characterized by the presence of hundreds of adenomatous polyps throughout the colon. Individuals carry 100% risk of developing colorectal cancer by age 40 years, and it causes less than 1% of all colorectal cancer cases.

Question 14 of 247

Question Difficulty:

Hard

Mr. X is complaining of tremors and ataxia associated with bone pain, muscle weakness, polyuria and polydipsia. He had past medical history of recurrent attacks of hepatitis.

Slit-lamp examination shows a greenish-brown discoloration within the cornea. Investigations show:

Hemoglobin	12 g/dL	(13.5-17.5 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	107 mmol/L	(53-106 mmol/L)
Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
24 hours urinary copper excretion	160 µg/day	< 60 µg/day
24 hours urinary copper excretion	160 µg/day	< 60 µg/day

What is the management of choice?

- ☐ Penicillamine
- ☐ L-dopa
- ☐ Prednisolone
- ☒ Liver transplantation
- ☐ Cyclosporine

Description

This patient has Wilson disease. It is manifested by liver cirrhosis, neuropsychiatric features as asymmetric tremor, ataxia, seizures and personality changes and Kayser-Fleischer rings within the cornea.

24 hours urinary copper excretion rate > 100 µg/day is diagnostic.

Lifelong chelating agents as penicillamine and trientine are the management of choice. Liver transplantation is indicated for end stage liver disease.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 13

Correct: 3

Incorrect: 10

Average Score: 23.08
%

Question 15 of 247

Question Difficulty:

Hard

Mr. X with a past medical history of HIV is suffering from diarrhea, abdominal pain and vomiting for the past week. Investigations show he is anemic with elevated liver function tests. Blood culture shows atypical mycobacterium.

What is the management of choice?

- ☐ Rifampicin plus INH plus ethambutol
- ☒ Clarithromycin
- ☐ Rifampicin plus INH
- ☐ Ethambutol
- ☐ INH

Description

This patient has *Mycobacterium avium* complex. MAC is primarily atypical mycobacteria that affects individuals who are immune compromised (AIDS, leukemias and immunosuppressive chemotherapy).

It is manifested by fever, sweats, diarrhea, anemia and hepatomegaly with deranged LFTs. Diagnosis is made by blood and bone marrow cultures.

Clarithromycin is the management of choice; ethambutol is alternative.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 14

✓ Correct 3

✗ Incorrect 11

Average Score: 21.43 %

Question 16 of 247

Question Difficulty:

Hard

Mr. X is complaining of 2 weeks of retrosternal epigastric pain that is worse after meals and at night. He tried antacid preparations but had achieved no relief. His weight was steady and bowel habit normal.

Examination was unremarkable except for obesity and CXR was free.

What is the management of choice?

- ☒ Low-dose PPI for 4 weeks
- ☐ Low-dose H2RA for 8 weeks
- ☐ High-dose H2RA for 8 weeks
- ☐ High-dose PPI for 4 weeks
- ☐ Urgent referral for upper GIT endoscopy

Description

NICE Guidelines 2004 suggest low-dose PPI or H2RA for 4 weeks is the management of choice for dyspepsia. Urgent referral for endoscopy is needed with the presence of alarm signs as GIT bleeding and weight loss.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 15

✓ Correct 4

✗ Incorrect 11

📈 Average Score: 26.67 %

Question 17 of 247

Question Difficulty:

Hard

30 year Mr. X is complaining of generalized body aches and diarrhea for 2 weeks. Examination shows that, despite a temperature of 40 C, he has a bradycardia of 60 per minute.

He has a non-itching rash, which blanches on pressure on her upper abdomen. The spleen is palpable and is not tender. A full blood count shows a leucopenia.

What is the management of choice?

- ☒ Chloramphenicol
- ☐ Clavulinic acid
- ☐ Ciprofloxacin
- ☐ Ceftriaxone
- ☐ Co-trimoxazole

Description

This patient has Typhoid fever. Relative bradycardia at the peak of the fever is an indicator of typhoid fever. Rose spots develop on the back, arms, and legs in up to 25% of cases late in the first week of fever.

Ciprofloxacin is the antibiotic of choice; chloramphenicol, co-trimoxazole and third generation cephalosporin are alternatives.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 16

✓ Correct 4

✗ Incorrect 12

Average Score 25 %

Question 18 of 247

Question Difficulty:

Hard

Mrs. X is complaining of 5-day history of malaise, mild jaundice and abdominal discomfort. She has a past history of hypertension for which she receives nifedipine, hypercholesterolemia which is treated with a statin and COPD which is treated with theophylline and she takes oral contraceptive pills. He consulted his GP two weeks earlier for a lower respiratory tract infection and was prescribed co-amoxiclav.

Liver functions show:

Bilirubin	32 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	354 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

Which of the above drugs would cause this liver picture?

- ☐ Co-amoxiclav
- ☒ Statin
- ☒ Theophylline
- ☐ Nifedipine
- ☐ Oral contraceptive pills

Description

The liver functions tests show a hepatotoxic picture. All the listed drugs cause cholestatic picture except statins which cause hepatotoxicity.

Drugs cause hepatotoxicity:

- Paracetamol
- Sodium valproate, phenytoin
- MAOIs
- Halothane
- Anti-tuberculosis: isoniazid, rifampicin, pyrazinamide
- Statins
- Alcohol
- Amlodarone
- Methyldopa

Drugs cause cholestasis:

- Oral contraceptive pill
- Antibiotics: flucloxacillin, co-amoxiclav, erythromycin, nitrofurantoin
- Anabolic steroids, testosterone
- Phenothiazines: chlorpromazine, prochlorperazine
- Sulphonylurea
- Fibrates
- Nifedipine

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 17

Correct: 4

Incorrect: 13

Average Score: 23.53 %

Question 19 of 247

Question Difficulty:

Hard

Mr. X was admitted to the ED due to severe vomiting, non-bloody diarrhoea and abdominal cramps 4 hours after eating a chicken sandwich. Examination reveals he looks dehydrated and shocked with BP of 85/60 mmHg and pulse of 100 min.

Serum creatinine	150 mmol/L	(53-106 mmol/L)
Serum urea	8.2 mmol/L	(2.5-7.1 mmol/L)
Hemoglobin	13 g/dL	(13.5-17.5 g/dL)
Leukocyte count	13 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	140 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)

What is the most likely causative organism?

- ☐ *Bacteroides fragilis*
- ☐ *Bacillus cereus*
- ☐ *E. coli*
- ☐ *Campylobacter jejuni*

☒ *Staphylococcus aureus*

Description

This patient has acute onset severe vomiting and watery diarrhoea which is consistent with production of an enterotoxin which is not killed by heat by *Staphylococcus aureus*. It is presented by severe vomiting with incubation period of 1-6 hours.

CHECK ANSWER

END SESSION

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Question 20 of 247

Question Difficulty:

Hard

Mr. X was complaining of fever, jaundice and right upper abdominal pain for 2 weeks. Investigations show:

Bilirubin	25 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	780 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBsAg	positive	
IgM anti-HBc	positive	
HBV DNA	positive	

Liver biopsy show early inflammation with no fibrosis.

What is the management of choice?

- ☐ Entecavir
- ☒ Peginterferon alfa-2a for 48 weeks
- ☐ Ribavirin
- ☐ Tenofovir
- ☐ Peginterferon alfa-2a for 24 weeks

Description

This patient has acute hepatitis B infection due to positive HBsAg, IgM anti-HBc and HBV DNA with compensated liver disease; peginterferon alfa-2a for 48 weeks is the first-line agent, tenofovir is alternative and entecavir as an alternative second-line treatment.

CHECK ANSWER

END SESSION

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Question 21 of 247

Question Difficulty:

Hard

Mr. X is complaining of dull right upper quadrant abdominal discomfort for 4 months. He had no past history of note but he also a strong family history of type-2 diabetes. He does not smoke but he drinks 2 cups of alcohol every night.

Examination reveals he is obese with BMI of 32, he has mild jaundice and abdominal examination reveals 2 CM enlarged liver.

His liver functions show:

Bilirubin	19 µmol/L	(2-17 µmol/L)
ALT	32 U/L	(8-20 U/L)
AST	18 U/L	(8-20 U/L)
Serum creatine kinase	105 U/L	(25-90 U/L)

Abdominal ultrasound reveals evidence of fatty infiltration of the liver. Biopsy reveals fat infiltration with some evidence of fibrosis.

What is the most likely diagnosis?

- ☐ Hepatocellular carcinoma
- ☐ Alcohol cirrhosis
- ☐ Primary biliary cirrhosis
- ☒ Nonalcoholic fatty liver disease
- ☐ Autoimmune hepatitis

Description

Nonalcoholic fatty liver disease (NAFLD) is a condition caused by fatty infiltration of the liver in the absence of large alcohol consumption that can result in liver failure.

The most significant risk factors for NAFLD include the components of metabolic syndrome: obesity, glucose intolerance or diabetes (Type 2), starvation, and dyslipidemia.

Most patients with NAFLD have few or no symptoms. Patients may complain of dull right upper quadrant abdominal discomfort and mild jaundice with mild elevated liver enzymes.

CHECK ANSWER

END SESSION

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Question 22 of 247

Question Difficulty:

Hard

Mr. X is complaining of 12-month history of intermittent lower back and right knee pain and diarrhea. He also reports episodes of seizures and memory deficits.

Duodenal biopsy shows villous atrophy and PAS-positive macrophages in the lamina propria containing non-acid-fast gram-positive bacilli.

What is the management of choice?

- ☐ Doxycycline
- ☒ Hydroxychloroquine plus sulfonamides
- ☐ Amoxicillin-clavulanic
- ☐ Cyclosporine
- ☐ Sulfasalazine

Description

This patient has Whipple disease. It is manifested by malabsorption, non-destructive seronegative arthritis of large joints, lymphadenopathy, uveitis, endocarditis and CNS dementia, confusion, headaches and seizures.

Management is by prolonged course of doxycycline with hydroxychloroquine for 12 to 18 months, sulfonamides may be added for treatment of neurological symptoms.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 21

✓ Correct 6

✗ Incorrect 15

✓ Average Score: 28.57 %

Question 22 of 247

Question Difficulty:

Hard

Mr. X is complaining of 12-month history of intermittent lower back and right knee pain and diarrhea. He also reports episodes of seizures and memory deficits.

Duodenal biopsy shows villous atrophy and PAS-positive macrophages in the lamina propria containing non-acid-fast gram-positive bacilli.

What is the management of choice?

- ☐ Doxycycline
- ☐ Hydroxychloroquine plus sulfonamides
- ☒ Amoxicillin-clavulanic
- ☐ Cyclosporine
- ☐ Sulfasalazine

Description

This patient has Whipple disease. It is manifested by malabsorption, non-destructive seronegative arthritis of large joints, lymphadenopathy, uveitis, endocarditis and CNS dementia, confusion, headaches and seizures.

Management is by prolonged course of doxycycline with hydroxychloroquine for 12 to 18 months, sulfonamides may be added for treatment of neurological symptoms.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 21

✓ Correct: 6

✗ Incorrect: 15

📊 Average Score: 28.57 %

Question 23 of 247

Question Difficulty:

Hard

Mr. X is complaining of 6-month history of diarrhea. He reported intermittent loose normal-colored stools 2-3 times a day of a porridge oats consistency. He also reported up to 10 hot flushes a day. He has a past history of asthma.

Examination reveals BP of 95/62 mmHg. There is widespread polyphonic expiratory wheeze on chest auscultation. The liver is enlarged 4 cm below the right costal margin. Investigations show:

Hemoglobin	9 g/dL	(Male: 13.5-17.5 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 million/mm ³	(150-450 million/mm ³)
Serum creatinine	102 mmol/L	(53-106 mmol/L)
Bilirubin	14 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	66 U/L	(25-90 U/L)
HBsAg	negative	

What is the most likely diagnosis?

- ☒ Carcinoid syndrome
- ☐ Liver carcinoma
- ☐ Colorectal carcinoma
- ☐ VIPoma
- ☐ Systemic mastocytosis

Description

Malignant carcinoid syndrome is the constellation of symptoms typically exhibited by patients with metastases from carcinoid tumors which cause excessive levels of serotonin.

It is manifested by flushing of the face, severe diarrhea, asthma attacks and hypotension. Liver metastasis and cirrhosis are common.

CHECK ANSWER

END SESSION

NEXT

Question 24 of 247

Question Difficulty:

Hard

Mr. X is complaining of fever, dull frontal headache, anorexia, and nausea 10 days after returning from a trip in the Middle East. He reports he had a limited diarrheal illness that lasted 2 days.

Examination reveals a temperature of 40 C and heart rate of 80 per minute. He also has rashes over his back, arms, and legs. Investigations reveal:

Serum creatinine	75 mmol/L	(53-106 mmol/L)
Hemoglobin	8 g/dL	(13.5-17.5 g/dL)
Leukocyte count	3.2 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	120 k/mm ³	(150-450 million/mm ³)
Neutrophils	1.5 X10 ⁹ /L	(2.5-7.5 x 10 ⁹ /L)
Lymphocytes	1.6 X10 ⁹ /L	(1.5-3.5 x 10 ⁹ /L)

What is the most likely diagnosis?

- ☐ Malaria
- ☐ Infectious mononucleosis
- ☐ Acute HIV infection
- ☒ Typhoid fever
- ☐ Brucellosis

Description

Typhoid fever is usually associated with prolonged low-grade fever, dull frontal headache, malaise, myalgia, dry cough, anorexia, and nausea. Relative bradycardia at the peak of the fever is an indicator of typhoid fever.

Rose spots develop on the back, arms, and legs in up to 25% of cases late in the first week of fever.

WBC count shows leukopenia, neutropenia and anemia.

CHECK ANSWER

END SESSION

NEXT

Question 25 of 247

Question Difficulty:

Hard

Mr. X is complaining of fever, abdominal pain and weight loss. He has a long history of diarrhea and rectal bleeding. Examination reveals tender hepatomegaly and a dull right base on chest examination.

CXR shows a raised right hemidiaphragm. Abdominal ultrasound shows solitary 6 CM abscess in the right lobe of the liver.

What is the management of choice?

- ☒ Albendazole
- ☐ Praziquantel
- ☐ Percutaneous drainage
- ☒ Surgical drainage
- ☐ Metronidazole

Description

This patient has amebic liver abscess. It is the most frequent extraintestinal manifestation of *Entamoeba histolytica* infection which ascends the portal venous system.

It is manifested by fever right upper quadrant pain and bloody diarrhea. Ultrasonography and CT show solitary abscess (unlike pyogenic liver abscess).

Metronidazole (750 mg 3 times a day orally for 10 days) is the drug of choice. Surgical aspiration is indicated for cavity size greater than 5 cm or left lobe liver abscess.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 24

✓ Correct 6

✗ Incorrect 18

Average Score 25 %

Question 26 of 247

Question Difficulty:

Easy

Mr. X is complaining of increasingly drowsy and difficult to rouse and he also noticed annoying tremors. There is no history of head injury. He has past medical history of previous treatment for alcohol addiction.

Abdominal examination reveals ascites and is enlarged liver and spleen. Investigations show:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
Leukocyte count	12 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum creatinine	128 mmol/L	(53-106 mmol/L)
Bilirubin	62 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	129 mmol/L	(136-145 mmol/L)
Serum potassium	3.3 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
Glucose (random)	12.2 mmol/l	(< 12 mmol/l)

ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	129 mmol/L	(136-145 mmol/L)
Serum potassium	3.3 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
Glucose (random)	12.2 mmol/l	(< 12 mmol/l)

All the following treatment should be offered except?

- ☐ Neomycin
- ☒ IV saline
- ☐ Protein restriction
- ☒ Lactulose
- ☐ Spironolactone

Description

This patient has hepatic encephalopathy may be observed in as many as 70% of patients with cirrhosis. Its symptoms range from mild confusion to deep coma.

Management includes protein restriction with lactulose and neomycin to decrease the colonic concentration of ammonia producing bacteria. Spironolactone is given for treatment of ascites.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 25

Correct: 6

Incorrect: 19

Average Score: 24 %

Question 27 of 247

Question Difficulty:

Hard

Mr. X was referred due to hepatitis B virus serology abnormal findings. It showed:

- HBsAg negative
- Anti-HBs positive
- HBeAg negative
- HBV DNA negative
- IgG anti-HBc negative
- IgM anti-HBc negative

What is the most likely HBV serology interpretation?

- ☐ HBeAg-negative chronic hepatitis B
- ☐ Hepatitis B carrier
- ☐ Acute hepatitis B disease
- ☒ Previous HBV immunization
- ☐ Chronic active hepatitis B disease

Description

- ☐ HBeAg-negative chronic hepatitis B
- ☐ Hepatitis B carrier
- ☐ Acute hepatitis B disease
- ☒ Previous HBV immunization
- ☐ Chronic active hepatitis B disease

Description

Previous HBV immunization is associated positive Anti-HBs antibody with all other markers are negative.

CHECK ANSWER

END SESSION

NEXT

Question 28 of 247

Question Difficulty:

Hard

Mr. X is complaining of intractable pruritus and clay-colored stools. ERCP was done and a biopsy confirms extrahepatic bile duct tumor. What is the management of choice?

- ☐ Cholestyramine
- ☐ Surgical resection
- ☐ Chemotherapy and radio therapy
- ☒ Palliative stenting by ERCP
- ☐ Ursodeoxycholic acid

Description

Cholangiocarcinoma is considered to be an incurable and rapidly lethal disease as the tumor is inoperable. Palliative stenting by ERCP is of choice in relieving pruritus. Adjuvant chemotherapy and radiation therapy may be used.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 27

✓ Correct: 6

✗ Incorrect: 21

📈 Average Score: 22.22 %

Question 29 of 247

Question Difficulty:

Hard

Mrs. X is complaining of right upper quadrant pain, fatigue and pruritus. She also reports her skin and eyes appearing yellow in color. She has a past history of Graves' disease and secondary amenorrhea.

Examination shows hepatomegaly and jaundice. Investigations reveal:

Bilirubin	42 µmol/L	(2-17 µmol/L)
ALT	820 U/L	(8-20 U/L)
AST	530 U/L	(8-20 U/L)
Serum creatine kinase	176 U/L	(25-90 U/L)
Serum sodium	135 mmol/L	(136-145 mmol/L)
Serum potassium	4.4 mmol/L	(3.5-5.0 mmol/L)
Hemoglobin	11.5 g/dL	(12.0-16.0 g/dL)
Leukocyte count	6 X 10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)

What is the management of choice?

- ☒ Prednisolone
- ☐ Cholestyramine
- ☐ Cyclosporine
- ☐ Liver transplantation
- ☒ Azathioprine

Description

This patient has autoimmune hepatitis. It present as acute or chronic hepatitis or fulminant hepatic failure. Extrahepatic symptoms include secondary amenorrhea, Cushingoid features and hirsutism, arthralgia and pleuritis.

Corticosteroids, either alone or in combination with azathioprine is the mainstay therapy. Liver transplantation is effective for patients in whom medical therapy has failed or for those with decompensated cirrhosis.

CHECK ANSWER

END SESSION

NEXT

Question 30 of 247

Question Difficulty:

Easy

Mr. X is complaining of a month history of progressive dysphagia to solids which is progressing recently to include liquids and weight loss. He admits to long term reflux managed by antacids. He smokes 20 cigarettes per day and drinks 2 pints of alcohol every night.

Examination reveals he lost 2 pounds in 1 month. His CXR shows widened mediastinum. Barium swallow is shown in the image.



What is the most likely diagnosis?

- ☐ Esophageal adenoma
- ☐ Esophageal varices
- ☒ Esophageal cancer
- ☐ Esophagitis
- ☐ Achalasia

Description

Barium swallow shows irregular filling defect with shrouding. This patient is complaining of esophageal cancer. It is manifested by dysphagia initially for solids progressing to include liquids, weight loss, hematemesis and retrosternal pain.

CHECK ANSWER

END SESSION

NEXT



Question 31 of 247

Question Difficulty:

Hard

14 years old boy is complaining of a 4-month history of diarrhea and weight loss. He reports he has not passed any fresh blood or melenas per rectum. He also reports he has recurrent painful oral ulcers and itching rashes over his elbow shown in the image.



Investigations reveal:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
MCV	108 fl	80-100 fl
Leukocyte count	$9 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
ESR	16	(10-20 1 st hour)
Serum albumin	28	(35 - 50 g/L)
pANCA	Negative	

What is the most likely diagnosis?

- ☐ Crohn disease
- ☒ Tropical sprue
- ☐ Celiac disease
- ☐ Bacterial overgrowth
- ☐ Whipple disease

Description

All the above causes' malabsorption symptoms as macrocytic anemia and hypocalcemia but celiac disease is associated with dermatitis herpetiformis. Celiac disease is associated with other autoimmune disorders as diabetes mellitus type 1, hypothyroidism and primary biliary cirrhosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 30

Correct: 7

Incorrect: 23

Average Score: 23.33 %

Question 32 of 247

Question Difficulty:

Hard

Mr. X is complaining of 3 days of anorexia and nausea and had some vomiting. His wife also reports he lost his consciousness 3 times. He has no past medical history except he recently he complains of severe knee pain.

Examination reveals right upper quadrant pain and no focal neurological signs. Investigations reveal:

Bilirubin	25 μ mol/L	(2-17 μ mol/L)
ALT	120 U/L	(8-20 U/L)
Serum creatine kinase	123 U/L	(25-90 U/L)
Serum creatinine	123 mmol/L	(53-106 mmol/L)
Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
pH	7.3	(7.35-7.45)
Glucose	3.4 mmol/l	(4-6 mmol/l)
Prothrombin time	22 seconds	(1-13 seconds)
Glucose	3.4 mmol/l	(4-6 mmol/l)
Prothrombin time	22 seconds	(1-13 seconds)

What would be the most likely cause of his symptoms?

- ☐ Aspirin overdose
- ☐ Alcohol overdose
- ☒ Paracetamol overdose
- ☐ Wilson disease
- ☐ Viral hepatitis

Description

This patient has paracetamol toxicity due to overdose due to knee pain. Paracetamol toxicity is manifested by right upper quadrant abdominal pain, anorexia, nausea, and vomiting.

Hepatic necrosis occurs within 72-96 h after ingestion; it is associated with jaundice, coagulopathy, hypoglycemia and hepatic encephalopathy, acute renal failure.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 31

Correct: 7

Incorrect: 24

Average Score: 22.58 %

Question 33 of 247

Question Difficulty:

Hard

Mrs. X who is in the 36 weeks of pregnancy seeks medical advice after noticing the whites of her eyes becomes more yellowish in color. Investigations show:

Hemoglobin	11 g/dL	(12.0-16.0 g/dL)
Mean corpuscular volume	88 fl	80-100 fl
Leukocyte count	22 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 million/mm ³	(150-450 million/mm ³)
Serum creatinine	102 mmol/L	(53-106 mmol/L)
Bilirubin	55 µmol/L	(2-17 µmol/L)
ALT	36 U/L	(8-20 U/L)
Serum creatine kinase	460 U/L	(25-90 U/L)
Serum bile salts	56 mmol/l	(15 mmol/l)

What is the management of choice?

Serum creatinine	102 mmol/L	(53-106 mmol/L)
Bilirubin	55 µmol/L	(2-17 µmol/L)
ALT	36 U/L	(8-20 U/L)
Serum creatine kinase	460 U/L	(25-90 U/L)
Serum bile salts	56 mmol/l	(15 mmol/l)

What is the management of choice?

- ☒ Phenobarbital
- ☐ Urgent delivery of the fetus
- ☐ Follow up
- ☒ Ursodeoxycholic acid
- ☐ Anti-coagulation

Description

This female has intrahepatic cholestasis of pregnancy (ICP). It is a reversible type of hormonally influenced cholestasis that frequently develops in late pregnancy.

It is featured by elevated total serum bile acid, high alkaline phosphatase with modest elevations in aminotransferases and hyperbilirubinemia.

Liver enzyme inducers as phenobarbital or bile acid sequestration by cholestyramine are used for jaundice. Ursodeoxycholic acid is used for pruritus. Delivery should be delayed to 37 weeks of gestation.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 32

Correct: 8

Incorrect: 24

Average Score: 25 %

Question 34 of 247

Question Difficulty:

Easy

Mr. X was admitted to the ED complaining of dehydration. He is just returned from Thailand 3 days ago where he develops a diarrheal illness which is very watery and he is moving his bowels twenty times a day.

Examination reveals he is severely dehydrated and his stool was watery stools that look like rice water, mixed with mucus and blood. He was rehydrated by IV fluids.

What is the management to be added?

- ☐ Mebendazole
- ☐ Erythromycin
- ☐ Amoxicillin
- ☒ Ciprofloxacin
- ☐ Metronidazole

Description

This patient has Cholera. Cholera is an intestinal infection caused by *Vibrio cholerae*. It causes a profuse secretory diarrhea. Incubation period is 1-5 days.

Symptoms begin with the sudden onset of painless watery diarrhea that may quickly become voluminous (rice water diarrhea) and is often followed by vomiting and severe dehydration (patient may lose >10% of normal body weight).

Doxycycline is the most appropriate antibiotic for treating cholera. Tetracycline or ciprofloxacin are alternatives.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 33

Correct 8

Incorrect 25

Average Score: 24.24 %

Question 35 of 247

Question Difficulty:

Hard

Mr. X is complaining of a year history of lethargy with reduced energy and vague joint aches. He also reports impotence and reduced shaving frequency.

Examination shows he has slightly pigmented skin, gynecomastia and a scanty facial, pubic and axillary hair. Examination of the testes reveals small testicular size with no masses felt. Abdominal examination shows 5 CM enlarged non-tender liver.

Which of the following is the investigation of choice for diagnosis?

- ☐ Karyotype
- ☒ Ferritin
- ☐ Short Synacthen test
- ☒ Ultrasound examination of testes
- ☐ MRI pituitary

Description

This patient has hemochromatosis. It is manifested by:

- Hepatomegaly and cirrhosis
- Skin hyperpigmentation, hair loss and koilonychia
- Diabetes mellitus due to iron deposition within the pancreas
- Arthropathy
- Amenorrhea, impotence and hypogonadism due to iron deposition within the pituitary
- Cardiomyopathy

Transferrin saturation levels (> 60%) and serum ferritin (> 500 µg/l) are diagnostic.

CHECK ANSWER

END SESSION

NEXT

Question 36 of 247

Question Difficulty:

Hard

Mrs. X who works as a nurse attends the occupational health department and asks for advice as she accidentally stabbed herself with a used needle from a patient infected with the hepatitis C virus.

Which of the following steps to be started?

- ☐ Ribavirin
- ☐ Lamivudine
- ☐ Interferon
- ☒ PCR
- ☐ Interferon plus ribavirin

Description

The risk of transmission of HCV from an occupational exposure is 1.8%.

If the source patient is known to be a carrier of HCV or have an active disease, the injected person should be screened for HCV by PCR and if is positive interferon alpha plus ribavirin should be started immediately.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 35

✓ Correct 8

✗ Incorrect 27

📈 Average Score: 22.86 %

Question 37 of 247

Question Difficulty:

Hard

Mr. X is complaining of severe diarrhea and cramps associated with rectal bleeding and mucoid discharge for 4 weeks. Sigmoidoscopy shows friable mucosa with a uniform pattern of inflammation and loss of normal mucosa. Stool culture is negative. Investigations reveal:

Bilirubin	19 µmol/L	(2-17 µmol/L)
ALT	42 U/L	(8-20 U/L)
Serum creatinine	88 mmol/L	(53-106 mmol/L)
Hemoglobin	9 g/dL	(Male: 13.5-17.5 g/dL)
MCV	75 fL	80-100 fL
Leukocyte count	$14 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
ESR	55	(10-20 1 st hour)

What is the most likely diagnosis?

- ☐ Celiac disease
- ☒ Ulcerative colitis
- ☐ Gastroenteritis
- ☐ Crohn disease
- ☒ Whipple disease

Description

Ulcerative colitis characteristically involves only the large bowel. It is manifested by severe diarrhea and cramps associated with rectal bleeding and mucoid discharge. The pathology includes:

- Inflammation in mucosa and submucosa only
- Widespread ulceration
- Pseudopolyps
- Inflammatory cell infiltrate in lamina propria
- Frequent crypt abscesses
- Goblet cells and mucin depletion from gland epithelium

Question 37 of 247

Question Difficulty:

Hard

Mr. X is complaining of severe diarrhea and cramps associated with rectal bleeding and mucoid discharge for 4 weeks. Sigmoidoscopy shows friable mucosa with a uniform pattern of inflammation and loss of normal mucosa. Stool culture is negative. Investigations reveal:

Bilirubin	19 µmol/L	(2-17 µmol/L)
ALT	42 U/L	(8-20 U/L)
Serum creatinine	88 mmol/L	(53-106 mmol/L)
Hemoglobin	9 g/dL	(Male: 13.5-17.5 g/dL)
MCV	75 fL	80-100 fL
Leukocyte count	$14 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
ESR	55	(10-20 1 st hour)

What is the most likely diagnosis?

- ☐ Celiac disease
- ☒ Ulcerative colitis
- ☐ Gastroenteritis
- ☐ Crohn disease
- ☒ Whipple disease

Description

Ulcerative colitis characteristically involves only the large bowel. It is manifested by severe diarrhea and cramps associated with rectal bleeding and mucoid discharge. The pathology includes:

- Inflammation in mucosa and submucosa only
- Widespread ulceration
- Pseudopolyps
- Inflammatory cell infiltrate in lamina propria
- Frequent crypt abscesses
- Goblet cells and mucin depletion from gland epithelium

Question 38 of 247

Question Difficulty:

Hard

Mr. X was complaining of abdominal pain with associated dark urine and pale colored stool for 4 months. Abdominal examination reveals enlarged liver.

Abdominal ultrasound shows enlarged cysts with calcified wall in the right lobe of his liver with smaller 2 cysts. His serum creatine kinase was 455 U/L (25-90 U/L).

Which of the following investigations would confirm diagnosis?

- ☐ ELISA test
- ☐ ERCP
- ☐ Stool analysis
- ☒ Ultrasound-guided aspiration
- ☐ Laparoscopy

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 37

✓ Correct: 8

✗ Incorrect: 29

📊 Average Score: 21.62 %

Question 38 of 247

Question Difficulty:

Hard

Mr. X was complaining of abdominal pain with associated dark urine and pale colored stool for 4 months. Abdominal examination reveals enlarged liver.

Abdominal ultrasound shows enlarged cysts with calcified wall in the right lobe of his liver with smaller 2 cysts. His serum creatine kinase was 455 U/L (25-90 U/L).

Which of the following investigations would confirm diagnosis?

- ☒ ELISA test
- ☐ ERCP
- ☐ Stool analysis
- ☒ Ultrasound-guided aspiration
- ☐ Laparoscopy

Description

Hydatid cyst is a parasitic infestation by a tapeworm of the genus *Echinococcus granulosus*. It affects people living near rural sheep farms.

It is featured by pressure effects in the liver causing progressive liver dysfunction, obstructive jaundice and abdominal pain or pressure effects in the lungs causing chronic cough, dyspnea, pleuritic chest pain, and hemoptysis

Ultrasonography and CT scan have an accuracy of 98% to demonstrate the daughter cysts and calcification. ELISA is the initial screening tests of choice for diagnosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 37

Correct 8

Incorrect 29

Average Score: 21.62 %

Question 39 of 247

Question Difficulty:

Average

Mr. X is complaining of heart burn and epigastric pain. An endoscopy was requested and shows a duodenal ulcer. He had a history of GERD and on management with a low dose omeprazole and had a previous course of *Helicobacter pylori* management. Serological testing was positive for *Helicobacter pylori*.
What is the management of choice?

- ☐ Start *Helicobacter pylori* management
- ☐ Request urea breath test
- ☐ Increase dose of omeprazole
- ☐ Stop omeprazole for 2 weeks and repeat serological testing
- ☒ Stop omeprazole for 2 weeks and request urea breath test

Description

Serological testing remains positive after *Helicobacter pylori* eradication and Carbon-13 urea breath test is used for testing reinfection. As the patient is taking PPI, testing for *Helicobacter pylori* should be delayed 2-weeks to washout PPI.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 38

✓ Correct 8

✗ Incorrect 30

📈 Average Score: 21.05 %

Question 40 of 247

Question Difficulty:

Hard

Mr. X is 30 year-old Vietnamese businessman now living in the UK presents with several months of diarrhea, anorexia and weight loss. Abdominal examination reveals mild tenderness. Investigations reveal he has anemia, hypoalbuminaemia and hypocalcaemia. Stool microscopy shows no trophozoites, spores of giardia or parasites seen. Duodenal biopsy shows villous atrophy. What is the management of choice?

- ☐ Mebendazole for 6 days
- ☒ Co-trimoxazole for 3 months
- ☐ Erythromycin for 2 weeks
- ☒ Metronidazole for 4 weeks
- ☐ Tetracycline for 6 weeks

Description

Tropical sprue (TS) is a syndrome characterized by acute or chronic diarrhea, weight loss, and malabsorption of nutrients. It occurs in residents or visitors to the tropics and subtropics. It is caused by intestinal microbial infection results in enterocyte injury, intestinal stasis, and possible bacteria overgrowth and villous atrophy (as in coeliac disease).

Long course of the antibiotic tetracycline or co-trimoxazole for 3 to 6 months is the management of choice.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 39

Correct 9

Incorrect 30

Average Score: 23.08 %

Question 41 of 247

Question Difficulty:

Hard

Mr. X was complaining of jaundice. Examination reveals enlarged tender liver and mild fever. Investigations show:

Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	640 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBsAg	negative	
HBV DNA	negative	
Anti-HCV antibodies	positive	
HCV RNA PCR	positive RNA genotype 3	

What is the management of choice?

- ☒ Peginterferon alfa and ribavirin for 24 weeks
- ☐ Ribavirin for 48 weeks
- ☐ Peginterferon alfa and ribavirin for 48 weeks
- ☒ Peginterferon alfa for 48 weeks
- ☐ Ribavirin for 24 weeks

Description

Anti-HCV indicates previous or current HCV infection but the HCV RNA PCR is positive so there is a current HCV infection. There is no HBV infection as HBsAg and HBV DNA were negative.

A combination of peginterferon interferon alfa 2a or 2b plus ribavirin are the management of choice for HCV; they are effective in clearing the virus in up to 40-80% of cases.

The length of treatment is guided by the type of the viral genotype. In genotype 2 or 3, treatment is continued for 24 weeks. In genotype 1 and 4, antiviral is continued for 48 weeks.

CHECK ANSWER

END SESSION

NEXT

Question 42 of 247

Question Difficulty:

Hard

Mrs. X is suffering from increased fatigue and symptoms of itching. She was diagnosed with Sjogren syndrome 3 years ago.

Examination shows xanthelasma and scratch marks consistent with her history of itching and she has severe jaundice in her eyes and skin.

Abdominal examination shows the abdomen is soft and non-tender and the liver edge was palpable 1 cm below the costal margin.

Investigations reveal:

Bilirubin	50 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
AST	70 U/L	(8-20 U/L)
Serum creatine kinase	320 U/L	(25-90 U/L)
Serum creatinine	86 mmol/L	(53-106 mmol/L)
Hemoglobin	11 g/dL	(12.0-16.0 g/dL)
Leukocyte count	4 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
IgM	416 mg/dL	(40-345 mg/dL)
IgG	820 mg/dL	(650-1500 mg/dL)
AMA	positive	
AMA	positive	

Which of the following investigations would confirm the diagnosis?

- ☐ CT scan of abdomen
- ☒ Percutaneous liver biopsy
- ☐ Magnetic resonance angiography
- ☒ Hepatitis C serology
- ☐ Magnetic resonance cholangiopancreatography

Description

This patient has **primary** biliary cirrhosis (PBC). It is a chronic autoimmune disease of the liver that leads to progressive cholestasis and often end-stage liver disease. PBC is presents frequently in women especially between the fourth and sixth decades.

It is manifested by cholestatic picture (significant elevations of the alkaline phosphatase with mild elevation of aminotransferases).

Antimitochondrial antibody (AMA) is diagnostic; it positive is in 98% of cases. Definitive diagnosis is made with percutaneous liver biopsy

Question 43 of 247

Question Difficulty:

Average

15 years old teen is complaining of depression, and poor concentration. He tends to cry very easily. He also complains of a resting tremor in one hand that has become progressively more noticeable over the last few months.

Examination reveals he has gynecomastia and yellowish discoloration around the cornea. Abdominal examination shows hepatomegaly. Neurological examination was free. Investigations show:

Hemoglobin	12 g/dL	(13.5-17.5 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	107 mmol/L	(53-106 mmol/L)
Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)

What is the most likely diagnosis?

- ☒ Wilson disease
- ☐ Hemochromatosis
- ☐ Hepatitis C
- ☐ Acute autoimmune hepatitis
- ☒ Alcoholic cirrhosis

Description

Wilson disease is an autosomal recessive disorder of copper metabolism that is characterized by excessive deposition of copper in the liver, brain, and other tissues. Onset of symptoms is usually between 10 and 25 years.

It is manifested by liver cirrhosis, neuropsychiatric features as asymmetric tremor, ataxia, seizures and personality changes and Kayser-Fleischer rings in the cornea.

Question 44 of 247

Question Difficulty:

Hard

Mr. X is complaining of 2 weeks history of epigastric pain, dysphagia and occasional vomiting. He also reports severe retrosternal pain during swallowing causing drooling of saliva. He has past medical history of BA and on management with oral prednisolone and inhaled formoterol.

Upper endoscopy was done and reveals ulcers throughout the esophagus with intervening normal-appearing mucosa.

How to diagnose this patient?

- ☐ CD4 count
- ☐ Barium swallow
- ☒ Biopsy from ulcer base
- ☐ ELISA test
- ☐ Blood culture

Description

This patient is complaining of viral esophagitis. It is usually associated with immunocompromised patient as this patient due to regular use of corticosteroids.

Herpes and Cytomegalovirus esophagitis has the same presentation and endoscopic findings. Biopsy from ulcer base is of choice for detection of viral antigens or viral DNA.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 43

Correct: 9

Incorrect: 34

Average Score: 20.93 %

Question 45 of 247

Question Difficulty:

Easy

Mr. X is complaining of sharp central epigastric pain and vomiting for 5 days. He smokes 30 cigarettes per day and drinks 2 pints of alcohol daily. He has no past medical history.

Endoscopy reveals a duodenal ulcer. Stool antigen was negative for H pylori.

What is the management of choice?

- ☐ Ranitidine 150 mg daily for 4 weeks
- ☐ Omeprazole 20 mg daily for 10 weeks
- ☐ Ranitidine 300 mg daily for 4 weeks
- ☐ Omeprazole 10 mg daily for 4 weeks
- ☒ Omeprazole 20 mg daily for 4 weeks

Description

NICE suggests full-dose PPI or H2RA therapy as an alternative for 4 to 8 weeks as a management of choice for people with peptic ulcer who have tested negative for H pylori who are not taking NSAIDs.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 44

✓ Correct 10

✗ Incorrect 34

📊 Average Score: 22.73 %

Question 46 of 247

Question Difficulty:

Hard

Mr. X was referred due to flaring-up of liver failure. He had a long history of HBV. Investigations show:

Bilirubin	28 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	680 U/L	(8-20 U/L)
Serum creatine kinase	192 U/L	(25-90 U/L)
HbsAg	positive	
HBV DNA	12000 IU/ml	
HCV RNA PCR	negative	
IgM anti-delta	positive	

What is the management of choice?

- ☒ Peginterferon alfa-2a
- ☐ Entecavir
- ☒ Peginterferon alfa and ribavirin
- ☐ Lamivudine
- ☐ Tenofovir

Description

This patient has flaring up of HBV with co-infection with HDV. 48-week course of peginterferon alfa-2a is the management of choice.

CHECK ANSWER

END SESSION

NEXT

Question 46 of 247

Question Difficulty:

Hard

Mr. X was referred due to flaring-up of liver failure. He had a long history of HBV. Investigations show:

Bilirubin	28 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	680 U/L	(8-20 U/L)
Serum creatine kinase	192 U/L	(25-90 U/L)
HbsAg	positive	
HBV DNA	12000 IU/ml	
HCV RNA PCR	negative	
IgM anti-delta	positive	

What is the management of choice?

- ☒ Peginterferon alfa-2a
- ☐ Entecavir
- ☒ Peginterferon alfa and ribavirin
- ☐ Lamivudine
- ☐ Tenofovir

Description

This patient has flaring up of HBV with co-infection with HDV. 48-week course of peginterferon alfa-2a is the management of choice.

CHECK ANSWER

END SESSION

NEXT

Question 47 of 247

Question Difficulty:

Hard

Mr. X was investigated due to progressive. Investigations show:

Bilirubin	28 µmol/L	(2-17 µmol/L)
ALT	1208 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBeAg	positive	
IgG anti-HBc	positive	
HBV DNA	1700 IU/ml	

Liver biopsy show no inflammation or fibrosis.

What is the management of choice?

- ☐ Lamivudine
- ☒ Follow up
- ☐ Entecavir
- ☐ Tenofovir
- ☐ Peginterferon alfa-2a

Description

This patient has chronic hepatitis B due to positive HBeAg, IgG anti-HBc and HBV DNA with normal liver. His HBV DNA was < 2000 IU/L so there is no indication for treatment.

Indications for management

- HBV DNA greater than 2000 IU/ml and abnormal ALT evidence of liver inflammation or fibrosis
- HBV DNA greater than 20,000 IU/ml and abnormal ALT regardless of the extent of liver disease
- Patients with cirrhosis and detectable HBV DNA, regardless of HBeAg status, HBV DNA and ALT levels

CHECK ANSWER

END SESSION

NEXT

Question 48 of 247

Question Difficulty:

Hard

Mr. X with liver cirrhosis was referred with an abdominal ultrasound that shows an irregular lesion within the liver. He was suspected to have hepatocellular carcinoma.

Which one of the following is a contraindication for performing a percutaneous liver biopsy?

- ☒ Transaminases in 1000
- ☐ Platelets of 100
- ☒ Tense ascites
- ☐ INR 1.3
- ☐ BMI of 29

Description

Contraindications to percutaneous liver biopsy

- Coagulopathy
- Severe anaemia
- Bile duct obstruction
- Hydatid cyst
- Hemoangioma
- Uncooperative patient
- Tense ascites

CHECK ANSWER

END SESSION

NEXT

Question 49 of 247

Question Difficulty:

Hard

Mr. X is complaining of profuse diarrhea. He was discharged 6 days earlier from the orthopedic ward where was treated for a septic arthritis and he had been treated with clindamycin.

Examination shows he is drowsy and dehydrated with lower abdominal tenderness. Sigmoidoscopy shows friable mucosa and pseudomembranes. Investigations reveal:

Serum creatinine	150 mmol/L	(53-106 mmol/L)
Serum urea	8.2 mmol/L	(2.5-7.1 mmol/L)
Hemoglobin	13 g/dL	(13.5-17.5 g/dL)
Leukocyte count	14 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Serum sodium	140 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)

What is the management of choice?

- ☐ Oral vancomycin
☒ IV vancomycin
☐ IV metronidazole
☒ Combination of oral vancomycin and IV metronidazole
☐ Oral metronidazole

Description

This patient has severe pseudomembranous colitis due to severe dehydration and renal failure. Oral metronidazole for 10-14 days for mild cases is the management of choice, oral vancomycin is alternative. Combination of oral vancomycin and intravenous metronidazole is indicated for severe cases.

CHECK ANSWER

END SESSION

NEXT

Question 50 of 247

Question Difficulty:

Hard

Mrs. X is complaining of amenorrhea and increased thirsty for 2 months. Examination reveals he has gynecomastia and deeply tanned skin. Investigations show:

Hemoglobin	12 g/dL	(13.5-17.5 g/dL)
Ferritin	512 µg/l	(15-300 µg/l)
Leukocyte count	$6 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	107 mmol/L	(53-106 mmol/L)
Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Glucose (fasting)	8 mmol/l	(< 6 mmol/l)

What is the most likely diagnosis?

- ☒ Autoimmune hepatitis
- ☐ Cushing disease
- ☐ Hemochromatosis
- ☐ Wilson disease
- ☐ Adrenal failure

Description

Hemochromatosis is the abnormal accumulation of iron in parenchymal organs leading to organ toxicity. It is manifested by:

- Hepatomegaly and cirrhosis
- Skin hyperpigmentation, hair loss and koilonychia
- Diabetes mellitus due to iron deposition within the pancreas
- Arthropathy
- Amenorrhea, impotence and hypogonadism due to iron deposition within the pituitary
- Cardiomyopathy

Serum ferritin > 500 µg/l is diagnostic.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 49

✓ Correct: 11

✗ Incorrect: 38

Average Score: 22.45 %

Question 51 of 247

Question Difficulty:

Hard

Mr. X is complaining of right upper quadrant pain and severe itch. He noticed his stools are pale and his urine was dark.

Examination reveals jaundice in his skin and sclera. Abdominal examination was free except he has non-tender hepatomegaly.

Investigations reveal bilirubin 62 $\mu\text{mol/L}$, ALT 121 U/L and serum creatine kinase 460 U/L. ERCP shows multiple strictures and dilations of the intrahepatic and extrahepatic biliary ducts.

What is the management of choice?

- ☐ Cyclosporine
- ☐ Methotrexate
- ☒ Ursodeoxycholic acid
- ☐ Liver transplantation
- ☐ Prednisolone

Description

This patient has primary sclerosing cholangitis (PSC). It is a progressive course of cholestasis with inflammation and fibrosis of the intrahepatic and extrahepatic bile ducts. It is strongly associated with ulcerative colitis (80% of cases).

Investigations show cholestatic picture with raised serum IgM and positive ANCA. Endoscopic retrograde cholangiopancreatography (ERCP) is diagnostic; it shows multiple strictures and dilations of the intrahepatic and extrahepatic biliary ducts.

Drug therapy as Ursodeoxycholic acid immunosuppressants and steroids is aimed at treating symptoms and managing complications. Liver transplantation is the management of choice.

CHECK ANSWER

END SESSION

NEXT

Question 52 of 247

Question Difficulty:

Hard

Mr. X is complaining of severe epigastric pain radiating to the back, nausea, vomiting and fever. He has a past medical history of asymptomatic gall stones.

Examination shows he looks unwell, temperature 38 C, and a BP of 100/65 mmHg, pulse 105/min. There is severe epigastric tenderness.

Investigations reveal WBC count of 14 X10⁹ /L, serum amylase of 1250 U/L. abdominal CT shows acute pancreatitis with pancreatic tissue necrosis.

What is the management of choice?

- ☒ CT guided pancreatic aspiration
- ☐ IV fluids and analgesia
- ☒ Percutaneous retroperitoneal endoscopic necrosectomy
- ☐ Cholecystectomy
- ☐ Insert a percutaneous drain

Description

Percutaneous retroperitoneal endoscopic necrosectomy is licensed by NICE in 2011 as management of choice for acute pancreatitis associated with pancreatic necrosis or development of complications.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 51

✓ Correct: 11

✗ Incorrect: 40

📊 Average Score: 21.57 %

Question 53 of 247

Question Difficulty:

Hard

Mr. X is complaining of 2 month history of abdominal pain and severe itching. He also noticed dark urine and yellowish discoloration of his skin. He has past medical history of chronic diarrhea.

Examination reveals he has 4-cm non-tender hepatomegaly and the rest of his abdominal examination is normal.

Investigations reveal:

Bilirubin	50 µmol/L	(2-17 µmol/L)
ALT	120 U/L	(8-20 U/L)
Serum creatine kinase	460 U/L	(25-90 U/L)
Serum creatinine	67 mmol/L	(53-106 mmol/L)
Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
ANCA	Positive	

Which of the following investigations would confirm diagnosis?

- ☐ Anti-mitochondrial antibodies
- ☐ Serum ferritin
- ☒ **Ultrasound scan**
- ☐ Endoscopic retrograde cholangiopancreatography
- ☐ Liver biopsy

Description

This patient has primary sclerosing cholangitis (PSC). It is a progressive course of cholestasis with inflammation and fibrosis of the intrahepatic and extrahepatic bile ducts. It is strongly associated with ulcerative colitis (80% of cases).

Investigations show cholestatic picture with raised serum IgM and positive ANCA. Endoscopic retrograde cholangiopancreatography (ERCP) is diagnostic; it shows multiple strictures and dilations of the intrahepatic and extrahepatic biliary ducts.

CHECK ANSWER

END SESSION

NEXT

Question 54 of 247

Question Difficulty:

Average

Mr. X is complaining of anorexia, nausea and vomiting 6 hours after he had 60 tablets of paracetamol for committing suicide as he was depressed as he was fired from his job.

Examination reveals right upper quadrant pain and no focal neurological signs. Investigations reveal:

Bilirubin	25 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	120 U/L	(8-20 U/L)
Serum creatine kinase	123 U/L	(25-90 U/L)
Serum creatinine	123 mmol/L	(53-106 mmol/L)
Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
pH	7.24	(7.35-7.45)
Glucose	3.4 mmol/l	(4-6 mmol/l)
Prothrombin time	22 seconds	(1-13 seconds)

Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
pH	7.24	(7.35-7.45)
Glucose	3.4 mmol/l	(4-6 mmol/l)
Prothrombin time	22 seconds	(1-13 seconds)

24 hours later he lost his consciousness with coarse twitching of his arms and legs.

What is the management of choice?

- ☐ Brain MRI
- ☒ Refer for liver transplantation
- ☒ Activated charcoal
- ☐ Carbamazepine
- ☐ N-acetylcysteine

Description

This patient has grade VI hepatic encephalopathy with severe metabolic acidosis. Indications for liver transplantation in paracetamol toxicity:

- Metabolic acidosis (Arterial pH < 7.3)
- Prothrombin time > 100 seconds (most indicator)
- Creatinine > 300 $\mu\text{mol/l}$
- Grade III or IV hepatic encephalopathy

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 53

Correct: 11

Incorrect: 42

Average Score: 20.75 %

Question Difficulty:

Hard

Mrs. X is 40 years old was complaining of increasing tiredness, upper abdominal discomfort, nausea, anorexia and itching. She has reports markedly increased bruising. She has no history of alcohol abuse.

Examination reveals extensive bruising on her limbs, scratch marks on her skin, spider nevus and mild jaundice. Abdominal examination shows hepatomegaly. Investigations reveal:

Bilirubin	29 µmol/L	(2-17 µmol/L)
ALT	620 U/L	(8-20 U/L)
AST	430 U/L	(8-20 U/L)
Serum creatine kinase	176 U/L	(25-90 U/L)
Serum sodium	135 mmol/L	(136-145 mmol/L)
Serum potassium	4.4 mmol/L	(3.5-5.0 mmol/L)
Hemoglobin	11.2 g/dL	(12.0-16.0 g/dL)
Leukocyte count	9 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
SMA	Positive	
LKM1	Negative	
LKM1	Negative	

What is the most likely diagnosis?

- ☐ Primary biliary cirrhosis
- ☐ Primary sclerosing cholangitis
- ☐ Type III autoimmune hepatitis
- ☒ Type I autoimmune hepatitis
- ☐ Type II autoimmune hepatitis

Description

Autoimmune hepatitis is a chronic continuing hepatocellular inflammation and necrosis. It has a tendency to progress to cirrhosis. It occurs with other autoimmune disorders, hypergammaglobulinemia and HLA B8, DR3.

Type I affect both adults and children and is associated with anti-nuclear antibodies (ANA) and/or anti-smooth muscle antibodies (SMA). Type II occurs predominantly in children and is associated with anti-liver/kidney microsomal type 1 antibody (LKM1). Type III is associated with

Question 56 of 247

Question Difficulty:

Hard

Mr. X is complaining of 3 weeks of dyspepsia. Which of the followings is no an urgent referral for upper GIT endoscopy?

- ☒ Patients aged 40 years with persistent vomiting
- ☐ Patients aged 60 years with progressive weight loss
- ☐ Patients aged 50 years with iron deficiency anemia
- ☐ Patients aged 70 years
- ☐ Patients aged 30 years with hematemesis

Description

Urgent referral for endoscopy is needed with the presence of alarm signs:

Patients aged 55 with recent, unexplained and persistent (4-6 weeks) symptoms or patient under 55 years with:

- Chronic gastrointestinal bleeding
- Progressive weight loss
- Progressive dysphagia
- Persistent vomiting
- Iron deficiency anemia
- Epigastric mass
- Suspicious barium meal

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 55

✓ Correct: 11

✗ Incorrect: 44

📊 Average Score: 20 %

Question 57 of 247

Question Difficulty:

Hard

Mr. X is complaining of mild fever, tiredness and jaundice 2 weeks after he had returned from a holiday to turkey. He is not an IV drug abuser or a homosexual, and had not received blood transfusion or tattoos during his trip.

Examination reveals he has jaundice and enlarged tender liver.

Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	780 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Anti-HBsAg	positive	
HBV DNA	negative	
HCV RNE PCR	negative	

What is the most likely diagnosis?

- ☐ Leptospirosis
- ☐ Hepatitis C
- ☐ Cytomegalovirus
- ☐ Hepatitis B
- ☒ Hepatitis A

Description

HAV infection almost exclusively occurs from fecal-oral transmission. It presents with non-specific symptoms of anorexia, nausea and vomiting, fatigue, malaise and low-grade fever followed by icteric phase of bilirubinuria (dark urine and pale stool).

The history excludes HBV AND HCV infection. Anti-HBsAg indicates vaccination.

CHECK ANSWER

END SESSION

NEXT

Question 58 of 247

Question Difficulty:

Hard

Mr. X with a history of type II diabetes is complaining of colicky right upper quadrant pain. Examination reveals he is obese, apyrexial with mild jaundiced. Abdominal examination reveals tenderness in the right upper quadrant.

Abdominal ultrasound shows no stones. His liver function tests show:

Bilirubin	66 µmol/L	(2-17 µmol/L)
ALT	42 U/L	(8-20 U/L)
Serum creatine kinase	410 U/L	(25-90 U/L)

What is the investigation of choice?

- ☒ Stool smear
- ☐ Abdominal CT
- ☐ ERCP
- ☒ MRCP
- ☐ Upper GI endoscopy

What is the investigation of choice?

- ☒ Stool smear
- ☐ Abdominal CT
- ☐ ERCP
- ☒ MRCP
- ☐ Upper GI endoscopy

Description

This patient has Gallstones. Gallstone disease may be asymptomatic gallstones or symptomatic gallstones, characterized by episodes of biliary colic or complicated cholelithiasis causing biliary obstruction. Type II diabetes is a common risk factor.

Ultrasonography is the procedure of choice. MRCP is alternative if ultrasound has not detected common bile duct stones but the bile duct is dilated and/or liver function test results are abnormal.

Question 59 of 247

Question Difficulty:

Hard

Mr. X is complaining of 2 years of difficulty swallowing and sense of a lump in his neck. He reports food regurgitation many hours after meals that made his mouth has offensive odor. He denies any vomiting, hematemesis or weight loss.

He is a heavy smoker and drinks 3 pints of beer every night. He had 2 episodes of pneumonia last year.

Abdominal examination is free. Barium swallow reveals a pouch in the pharynx lies above the cricopharyngeal muscle.

What is the management of choice?

- ☐ High PPI for 4 weeks
- ☐ Smoking cessation
- ☐ Follow up
- ☒ Surgical resection
- ☐ Alcohol withdrawal

Description

This patient has pharyngeal pouch. It is manifested by dysphagia and sense of a lump in the neck, regurgitation of rotten food in the mouth and halitosis. It is complicated by chronic cough and recurrent pneumonia.

Symptomatic cases are managed by surgical resection of the diverticulum. If the diverticulum small and asymptomatic, no treatment needed.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 58

✓ Correct 12

✗ Incorrect 46

📈 Average Score: 20.69 %

Question 60 of 247

Question Difficulty:

Hard

Mr. X is complaining of upper abdominal pain, weight loss and intermittent diarrhoea for 12 months. He has no past medical history and drinks 4 pints of alcohol every day.

Examination reveals tenderness to deep palpation in the epigastrium. Abdominal ultrasound shows pancreatic calcification. Investigations show:

Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
ALT	110 U/L	(8-20 U/L)
AST	68 U/L	(8-20 U/L)
Serum amylase	102 U/L	(25-125 U/L)
Leukocyte count	9 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)

What is the most likely diagnosis?

- ☐ Gall stones
- ☐ Cholecystitis
- ☐ Acute pancreatitis
- ☒ Pancreatic cancer
- ☐ Chronic pancreatitis

Description

Chronic pancreatitis is manifested by meals dependent abdominal pain in the left upper abdomen radiating the midback, diarrhoea, steatorrhea and weight loss due malabsorption.

Pancreatic calcification is pathognomonic for chronic pancreatitis.

CHECK ANSWER

END SESSION

NEXT

Question 61 of 247

Question Difficulty:

Hard

Mr. X is complaining of longstanding dyspepsia which has been worsening. He has past medical history of bronchial asthma.

His current medication includes low dose prednisolone, aminophylline and salmeterol for BA. Alendronate has been started for bone protection. He also takes nifedipine for hypertension and allopurinol as prophylaxis against gout.

All of the following drug should be withdrawn from his medication except?

- ☒ Nifedipine
- ☐ Allopurinol
- ☐ Alendronate
- ☐ Aminophylline
- ☐ Prednisolone

Description

Drug causes of dyspepsia include NSAIDs, bisphosphonates, steroids, calcium channel blockers, nitrates and theophylline.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 60

✓ Correct: 12

✗ Incorrect: 48

📈 Average Score: 20 %

Question 62 of 247

Question Difficulty:

Hard

Mr. X presents with episodes of unexplained abdominal pain associated with upper gastrointestinal hemorrhage.

Examination reveals he has pallor with peri-oral pigmentation with a number of macular lesions which cross the vermillion border. His abdomen is soft but mildly tender on palpation.

Investigations reveal positive fecal occult bloods. Upper GI endoscopy reveals a number of hamartomatous polyps.

What is the most likely diagnosis?

- ☐ Familial adenomatosis polyposis
- ☐ Gardner syndrome
- ☒ Cowden syndrome
- ☐ Peutz-Jeghers syndrome
- ☐ Pseudopolyps

Description

Peutz-Jeghers syndrome (PJS) is an autosomal dominant inherited disorder characterized by intestinal hamartomatous polyps in association with a distinct pattern of skin and mucosal macular melanin deposition.

It is manifested by hematemesis, melena or rectal bleeding due to intestinal hamartomatous polyps, mucocutaneous pigmentation may be present on the lips and buccal mucosa and around the mouth, eyes, and nostrils and severe iron deficiency anemia.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 61

✓ Correct: 12

✗ Incorrect: 49

📊 Average Score: 19.67 %

Question 63 of 247

Question Difficulty:

Hard

Mr. X is abdominal distension, dehydration and fever for 10 days. He also reports a bleeding anal mass. He is just returned from travelling to the Far-East.

AXR reveals dilated large bowel and stool culture was negative. Other investigations reveal:

ALT	42 U/L	(8-20 U/L)
Serum creatinine	77 mmol/L	(53-106 mmol/L)
Hemoglobin	10 g/dL	(13.5-17.5 g/dL)
MCV	80 fl	80-100 fl
Leukocyte count	14 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.4 mmol/L	(3.5-5.0 mmol/L)
ESR	70	(10-20 1 st hour)
Serum albumin	30	(35 - 50 g/L)
pANCA MCV	Positive uu fl	uu-100 fl
Leukocyte count	14 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.4 mmol/L	(3.5-5.0 mmol/L)
ESR	70	(10-20 1 st hour)
Serum albumin	30	(35 - 50 g/L)
pANCA	Positive	

What is the most likely diagnosis?

- ☐ Shigella infection
- ☐ Celiac disease
- ☒ Ulcerative colitis
- ☐ Amebiasis
- ☐ Giardiasis

Description

Ulcerative colitis characteristically involves only the large bowel. It is manifested by severe diarrhea and cramps associated with rectal bleeding and mucoid discharge. It is associated with raised ESR, hypoalbuminaemia and positive pANCA.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 62

Correct: 12

Incorrect: 50

Average Score: 19.35 %

Question 64 of 247

Question Difficulty:

Hard

15 years Miss X is complaining of progressive weight loss and diarrhea started a year ago. She had no medical history or family history of GI disease. Investigations reveal:

Serum creatinine	55 mmol/L	(53-106 mmol/L)
Serum sodium	132 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
Hemoglobin	10 g/dL	(12.0-16.0 g/dL)
Leukocyte count	5 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	160 k/mm ³	(150-450 million/mm ³)

Upper gastrointestinal endoscopy and biopsy shows pigment-laden macrophages within the mucosa on PAS staining.

What is the most likely diagnosis?

- ☐ Irritable bowel syndrome
- ☐ Carcinoid syndrome
- ☒ Melanosis coli
- ☐ Bilirubin salt malabsorption
- ☐ Thyrotoxicosis

Description

Melanosis coli is a disorder of pigmentation of the wall of the colon, often discovered accidentally during colonoscopy. It is usually caused by the extended use of laxatives (laxative abuse) especially anthraquinone compounds such as Senna.

Laxative abuse is usually closely linked to eating disorders (Bulimia and Anorexia) and as such is typically presented in young, female patients with chronic diarrhea.

On biopsy it shows characteristic pigment-laden macrophages within the mucosa on PAS staining.

CHECK ANSWER

END SESSION

NEXT

Question 65 of 247

Question Difficulty:

Hard

Mr. X and 3 of his family members was admitted to the ED due to severe unremitting vomiting and diarrhea that started 4 hours after 6 hours of abdominal, fever and malaise. He reports that they shared all the day meals except his 8 years old boy.

Abdominal examination shows global tenderness. Stool smear shows no bacteria, cysts or ova.

What is the most likely diagnosis?

- ☒ **Bacillus cereus**
- ☐ Norovirus
- ☐ Salmonella infection
- ☐ Staph aureus
- ☐ Campylobacter infection

Description

They all did not have the same meals which excludes food poisoning. Viral gastroenteritis is characterized by the rapid presentation and short incubation period.

Norovirus is the most common cause of viral gastroenteritis in humans particularly during the winter months. It is manifested by outbreaks that occur in closed or semi-closed communities, such as long-term care facilities, overnight camps, hospitals, schools and prisons.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 64

✓ Correct 14

✗ Incorrect 50

✓ Average Score: 21.88 %

Question 66 of 247

Question Difficulty:

Hard

Mr. X is suffering from profuse bloody diarrhoea and dysentery not associated with fever 5 days after he returned from a Nile cruise. Stool examination reveals blood and mucus mixed in with the motion each time.

Which investigation is helpful for diagnosis?

- ☐ Blood culture
- ☒ Serologic testing
- ☐ Stool antigen
- ☐ Stool culture
- ☐ Stool microscopy

Description

Amebiasis is caused by *Entamoeba histolytica* a protozoan that is found worldwide (especially in developing countries).

Amoebic dysentery is presented by tenesmus with bloody diarrhoea with mucus that is not associated with fever unlike the bacillary dysentery.

Stool microscopy is of choice for viewing trophozoites; culture and serologic testing are alternatives.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 65

✓ Correct: 14

✗ Incorrect: 51

📈 Average Score: 21.54 %

Question 67 of 247

Question Difficulty:

Hard

Mr. X is suffering from epigastric pain and vomiting for 6 days. The pain starts 2 hour after meals and is relieved by food. He has no hematemesis and never noticed dark stool. Abdominal examination reveals tenderness in the epigastrium.

What is the management of choice?

- ☒ High dose PPI
- ☐ Antibiotics
- ☐ High dose H2RA
- ☐ NSAIDs
- ☐ H pylori testing

Description

This patient is complaining of peptic ulcer. Peptic ulcer is manifested by dyspepsia, epigastric tenderness. H pylori infection causes 60% of gastric and duodenal ulcers, so it must be tested before starting management.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 66

✓ Correct 14

✗ Incorrect 52

Average Score: 21.21 %

Question 68 of 247

Question Difficulty:

Easy

Mr. X is complaining of 3 months of jaundice, severe pruritus and abdominal pain. He has past history of ulcerative colitis which is managed with topical mesalazine.

Examination shows hepatomegaly and mild ascites. Investigations reveal:

Bilirubin	50 µmol/L	(2-17 µmol/L)
ALT	120 U/L	(8-20 U/L)
Serum creatine kinase	460 U/L	(25-90 U/L)
Serum creatinine	67 mmol/L	(53-106 mmol/L)
Leucocyte count	8 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
IgM	620 mg/dL	(40-345 mg/dL)
IgG	820 mg/dL	(650-1500 mg/dL)
AMA	Negative	
ANCA	Positive	

What is the most likely diagnosis?

What is the most likely diagnosis?

- ☐ Pancreatic carcinoma
- ☐ Mesalazine allergy
- ☐ Primary biliary cirrhosis
- ☐ Chronic active hepatitis
- ☒ Primary sclerosing cholangitis

Description

Primary sclerosing cholangitis (PSC) is a progressive course of cholestasis with inflammation and fibrosis of the intrahepatic and extrahepatic bile ducts. It is strongly associated with ulcerative colitis (80% of cases).

Initial presentation consists of fatigue, jaundice, pruritus, and right upper quadrant pain. Progressive disease causes cirrhosis with symptoms of variceal bleeding, ascites and hepatic encephalopathy.

Investigations show raised serum IgM and positive ANCA. Negative AMA excludes primary biliary cirrhosis.

Question 69 of 247

Question Difficulty:

Hard

Mr. X is complaining of epigastric pain for 2 months. His GP prescribed him H2RA which have produced partial relief of his symptoms. An upper gastrointestinal endoscopy reveals a 1-cm duodenal ulcer.

Which of the following risk factors is least associated with the development of peptic ulcers?

- ☐ Daily use of NSAIDs
- ☐ Systemic mastocytosis
- ☒ Helicobacter pylori infection
- ☐ Zollinger-Ellison syndrome
- ☐ Emotional stress

Description

Recent studies have excluded emotional stress to be a direct cause of inducing peptic ulcers. Causes of peptic ulcers include:

- H pylori infection causes 60% of gastric and duodenal ulcers
- Lifestyle factors (Tobacco and alcohol)
- Hypersecretory states (Zollinger-Ellison syndrome, systemic mastocytosis)
- Genetic factors
- Drugs e.g. NSAIDs except COX-2 selective inhibitors (coxibs)

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 68

✓ Correct: 15

✗ Incorrect: 53

✓ Average Score: 22.06 %

Question 70 of 247

Question Difficulty:

Easy

Mr. X with a past history of celiac disease is complaining from 8 days of abdominal pain and distension and a 2-day history of persistent vomiting. He was managed by gluten free diet and reported he did not change his diet.

What is the most likely cause of his symptoms?

- ☐ Carcinoma of the colon
- ☒ Intestinal adhesions
- ☐ Small bowel carcinoma
- ☐ Meckel diverticulum
- ☐ Small bowel lymphoma

Description

Celiac disease is associated with an increased risk of developing small bowel lymphoma, which occurs in approximately 6% of patients.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 69

✓ Correct: 15

✗ Incorrect: 54

Average Score: 21.74 %

Question 71 of 247

Question Difficulty:

Hard

Mr. X is suffering from intermittent diarrhea and weight loss over the past 3 months. He has a past medical history of memory problems and seizures.

Abdominal examination was unremarkable and he has supraclavicular lymphadenopathy. Investigations reveal:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
MCV	108 fl	80-100 fl
Leukocyte count	7.5 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	135 mmol/L	(136-145 mmol/L)
Serum potassium	3.1 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.0 mmol/L	(2.1-2.8 mmol/L)
ESR	12	(10-20 1st hour)
Serum albumin	30	(35 - 50 g/L)

What is the most likely diagnosis?

- ☐ Crohn disease
- ☐ Bacterial overgrowth
- ☐ Tropical sprue
- ☒ Celiac disease
- ☐ Whipple disease

Description

Whipple disease is a systemic disease most likely caused by a gram-positive bacterium, *Tropheryma whipplei*. It is typically affects middle-aged men.

It is manifested by malabsorption, non-destructive seronegative arthritis of large joints, lymphadenopathy, uveitis, endocarditis and CNS dementia, confusion, headaches and seizures.

CHECK ANSWER

END SESSION

NEXT

Question Difficulty:

Hard

Mr. X is 52 years is complaining of severe upper abdominal pain radiating to his back, associated with nausea and vomiting. He opens his bowels 6 times per day with loose stools and mucus. Abdominal CT confirms he has acute Pancreatitis.

After admission he began to deteriorate and his complains of dyspnea and his PO2 was 9.2 KPa. Investigations show:

Leukocyte count	14 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.0 mmol/L	(2.1-2.8 mmol/L)
ALT	110 U/L	(8-20 U/L)
Serum urea	18 mmol/L	(2.5-7.1 mmol/L)
Serum amylase	1250 U/L	(25-125 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

Which of the above data would indicate a poor prognosis?

☒ Leukocyte count

☐ Serum amylase

☒ Serum urea

☐ PO2

☐ Serum calcium

Description

The Glasgow criteria are a clinical prediction rule for predicting the severity of acute pancreatitis. It is scored through the mnemonic,

PANCREAS:

- P - PaO2 <8kPa
- A - Age >55 year old
- N - Neutrophilia - WCC >15x10⁹/L
- C - Calcium <2 mmol/L
- R - Renal function, Urea >16 mmol/L
- E - Enzymes: LDH >600u/L, AST >200u/L
- A - Albumin <32g/L (serum)

Question 73 of 247

Question Difficulty:

Hard

35 years Mr. X is complaining of dyspepsia for 1 month. On questioning he denied any weight loss, vomiting or hematemesis. He is nonsmoker and teetotaler and has no past medical history.

Abdominal examination reveals epigastric mass. CXR and CBS are free.

What is the management of choice?

- ☐ Low-dose PPI for 8 weeks
- ☐ Low-dose PPI for 4 weeks
- ☐ High-dose PPI for 8 weeks
- ☒ Urgent referral for upper GI/T endoscopy
- ☐ High-dose PPI for 4 weeks

Description

Urgent referral for endoscopy is needed with the presence of alarm signs:

Patients aged 55 with recent, unexplained and persistent (4-6 weeks) symptoms or patient under 55 years with:

- Chronic gastrointestinal bleeding
- Progressive weight loss
- Progressive dysphagia
- Persistent vomiting
- Iron deficiency anaemia
- Epigastric mass
- Suspicious barium meal

CHECK ANSWER

END SESSION

NEXT

Question 74 of 247

Question Difficulty:

Hard

Mrs. X who is in her 33 weeks pregnant was suffering from right upper quadrant pain and jaundice. Examination reveals a BP of 155/92 mmHg and lower limb edema. Investigations show:

Hemoglobin	11 g/dL	(12.0-16.0 g/dL)
Mean corpuscular volume	88 fl	80-100 fl
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	88 k/mm ³	(150-450 million/mm ³)
Serum creatinine	102 mmol/L	(53-106 mmol/L)
Bilirubin	55 µmol/L	(2-17 µmol/L)
ALT	66 U/L	(8-20 U/L)
Serum creatine kinase	106 U/L	(25-90 U/L)

What is the most likely diagnosis?

- ☐ Acute fatty liver of pregnancy
- ☐ Cholecystitis
- ☒ HELLP syndrome
- ☐ Intrahepatic cholestasis of pregnancy
- ☒ Preeclampsia

Description

HELLP syndrome (hemolysis, elevated liver enzyme levels, and low platelet levels) is a life-threatening condition that can potentially complicate pregnancy.

HELLP syndrome typically occurs in the third trimester with a mean age of 25 years. It may be considered as a severe form of preeclampsia.

CHECK ANSWER

END SESSION

NEXT

Question 75 of 247

Question Difficulty:

Hard

Mr. X with is complaining of dry cough and profuse watery diarrhoea without abdominal pain or fever for 3 months. He has a past medical history of HIV and on management with HAART.

Stool examination was free. Investigations show:

Hemoglobin	11 g/dL	(13.5-17.5 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	160 k/mm ³	(150-450 million/mm ³)
Neutrophils	5 X10 ⁹ /L	(2.5-7.5 x 10 ⁹ /L)
Lymphocytes	0.6 X10 ⁹ /L	(1.5-3.5 x 10 ⁹ /L)
CD4 T-helper cell	150 /mm ³	1200 /mm ³

What is the investigation of choice for diagnosis?

- ☐ Sputum modified Ziehl-Neelsen stain
- ☒ Stool modified Ziehl-Neelsen stain
- ☐ Stool culture
- ☒ Bone marrow aspirate
- ☐ Lower GI endoscopy

Description

This patient has HIV complicated by Cryptosporidium infection. Cryptosporidium is a protozoan that can cause respiratory and gastrointestinal diseases. It is presented by severe watery diarrhoea with or without a persistent cough in immunodeficient patients.

Diagnosis is made by modified Ziehl-Neelsen stain of the stool. It shows red-stained rounded oocysts.

CHECK ANSWER

END SESSION

NEXT

Question 76 of 247

Question Difficulty:

Hard

80 years Mr. X with long history of abdominal discomfort and bloating is complaining of severe left iliac pain associated with fever and intermittent diarrhea over the past week.

Examination reveals fever of 40.5 C and left lower quadrant abdominal tenderness with a palpable mass. Investigations reveal:

Bilirubin	9 µmol/L	(2-17 µmol/L)
ALT	26 U/L	(8-20 U/L)
Serum creatinine	102 mmol/L	(53-106 mmol/L)
Leukocyte count	16 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	180 k/mm ³	(150-450 million/mm ³)
Neutrophils	13 X10 ⁹ /L	(2.5-7.5 x 10 ⁹ /L)
ESR	40	(10-20 1st hour)

What is the most likely diagnosis?

- ☐ Ulcerative colitis
- ☒ Diverticular abscess
- ☐ Irritable bowel syndrome
- ☐ Appendicitis
- ☒ Acute diverticulitis

Description

This patient has diverticulitis complicated by diverticular abscess. Diverticulitis is as an inflammation of one or more diverticula (small pouches created by herniation of mucosa into the wall of the colon). Diverticulitis is generally considered a disease of the elderly.

It is manifested by abdominal pain, change in bowel habits, nausea and vomiting, flatulence and bloating. Localized abdominal tenderness is seen in the area of the affected diverticula (mostly left lower quadrant) and fever. Tender palpable mass and elevated inflammatory markers are present in complicated diverticulitis with abscess.

CHECK ANSWER

END SESSION

NEXT

Question 77 of 247

Question Difficulty:

Hard

Mr. X is HIV-positive is complaining of 2 weeks history of epigastric pain, dysphagia and occasional vomiting. He also reports severe retrosternal pain during swallowing causing drooling of saliva. His GP prescribed H2-antagonists, however there was no relief.

Upper GI endoscopy shows diffuse raised white plaques that can be removed from the mucosa.

What is the most likely diagnosis?

- ☐ Herpes esophagitis
- ☒ Esophageal candidiasis
- ☐ Eosinophilic esophagitis
- ☒ Barrett Esophagus
- ☐ Cytomegalovirus esophagitis

Description

Esophageal candidiasis occurs in immunocompromised patients as post-chemotherapy, steroids and in AIDS.

Endoscopy is diagnostic; it shows diffuse raised plaques that characteristically can be removed from the mucosa. Brushing or biopsy of the plaques shows yeast and pseudo-hyphae characteristic of *Candida* species

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 76

✓ Correct 16

✗ Incorrect 60

📈 Average Score: 21.05 %

Question 78 of 247

Question Difficulty:

Hard

Mr. X presents with abdominal pain, jaundice and ascites worsening over a week. He has no past medical history except polycythemia vera.

Examination reveals he is apyrexial, deeply jaundiced with tender hepatomegaly. Investigations show:

Hemoglobin	12 g/dL	(13.5-17.5 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Platelets	210 K/mm ³	(150-450 million/mm ³)
Serum creatinine	107 mmol/L	(53-106 mmol/L)
Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Ascitic fluid SAAG	14 g/L	(11g/L)
Ascitic fluid orotinin	75 g/L	11-30 g/L
Ascitic fluid protein	25 g/L	
Ascitic fluid amylase	20 U/L	(≤ 40 U/L)

What is the most likely diagnosis?

- ☒ Budd-Chiari syndrome
- ☐ Acute pancreatitis
- ☐ Viral hepatitis
- ☐ Hydatid disease
- ☒ Alcoholic cirrhosis

Description

This patient has Budd-Chiari syndrome. It is a thrombotic or non-thrombotic obstruction of hepatic venous outflow. It is commonly occurs in association with a hypercoagulable state which is a complication of polycythemia vera. The characteristic manifestations are transudative ascites (high SAAG and ascitic protein < 30 g/L) and tender hepatomegaly.

Question 79 of 247

Question Difficulty:

Hard

Mrs. X who was pregnant in in the 32 weeks is complaining of right upper-quadrant and epigastric pain followed by hematemesis. Investigations show ALT was 450 U/L (8-20 U/L) and leukocytosis. Liver ultrasound shows steatohepatitis. What is the management of choice?

- ☒ Antemetics and fluids
- ☐ Emergent delivery
- ☐ Follow up
- ☐ Wait for the 35 weeks and refer for delivery
- ☐ Analgesics

Description

This patient has acute fatty liver of pregnancy (AFLP). It is a serious complication of pregnancy characterized by microvesicular steatosis in the liver.

It is manifested by elevated white cell count, elevated aminotransferase levels and increased echogenicity in liver ultrasonography.

Delivery of the fetus regardless of gestational age is the only treatment for acute fatty liver of pregnancy; spontaneous resolution usually follows delivery.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 78

✓ Correct 16

✗ Incorrect 62

📊 Average Score: 20.51 %

Question 80 of 247

Question Difficulty:

Hard

Mrs. X is suffering from increased fatigue and symptoms of itching. Examination shows xanthelasma and scratch marks consistent with her history of itching and she has severe jaundice in her eyes and skin.

Investigations reveal ALT 90 U/L (8-20 U/L) and serum creatine kinase 370 U/L (25-90 U/L). Percutaneous liver biopsy shows intra-hepatic biliary obstruction and end-stage liver cirrhosis.

What is the management of choice?

- ☒ Prednisolone
- ☐ Ursodeoxycholic acid
- ☐ Azathioprine
- ☒ Liver transplantation
- ☐ Methotrexate

Description

This patient has primary biliary cirrhosis (PBC). It is associated with other autoimmune diseases. It is manifested by cholestatic picture (significant elevations of the alkaline phosphatase with mild elevation of aminotransferases). Antimitochondrial antibody (AMA) is diagnostic. It positive is in 98% of cases.

Ursodeoxycholic acid is the management of choice; it is used to slow the progression of the disease. Corticosteroids and methotrexate may produce improvement in biochemical and histologic findings.

Liver transplantation is indicated for advanced cirrhosis and intractable pruritus.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 79

✓ Correct 16

✗ Incorrect 63

Average Score: 20.25

Question 81 of 247

Question Difficulty:

Average

5 adult friends were admitted to the ED complaining profuse vomiting after 3 hours of having a meal at a Chinese restaurant. After 7 hours all patients started to have a watery diarrhea.

On questioning they all have a mixture of dishes of rice and meat except one who ate vegetarian dishes with rice.

What is the most likely causative organism?

- ☐ Bacteroides fragilis
- ☒ Campylobacter jejuni
- ☐ E. coli
- ☐ Staphylococcus aureus
- ☐ Bacillus cereus

Description

Bacillus cereus is manifested by vomiting illness with an incubation period of 1-6 hours and followed by a diarrheal illness after a period of 6-14 hours especially in patients having slow cooked food and re-heated rice (Chinese restaurant syndrome).

CHECK ANSWER

END SESSION

NEXT

Session Statistics

👤 Answered: 80

✓ Correct: 16

✗ Incorrect: 64

📊 Average Score: 20 %

Question 82 of 247

Question Difficulty:

Hard

Mr. X presents with a 2 month history of bloody diarrhea, urgency, tenesmus and crampy abdominal pain.

Which of the following findings suggest Ulcerative colitis over Crohn disease?

- ☐ Cobblestone' pattern
- ☒ Scanty crypt abscesses
- ☐ Widespread ulceration
- ☐ Rose-thorn' ulcers
- ☐ Non-caseating granulomas

Description

Ulcerative colitis is associated with widespread ulceration causing friable mucosa unlike Crohn disease which is associated with patchy ulceration.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 81

✓ Correct: 16

✗ Incorrect: 65

📈 Average Score: 19.75 %

Question 83 of 247

Question Difficulty:

Hard

Mrs. X who works as a nurse was wounded by a needle which was used by a patient who was admitted due to HBV hepatitis.

What is her risk for transmission of HBV if the source of infection was HBeAg negative?

- ☐ 30%
- ☐ 2%
- ☒ 20%
- ☐ 5%
- ☐ 10%

Description

The risk of transmission of HBV from an occupational exposure is 30% if the source is positive for HBeAg and 6% if the source is negative for HBeAg.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 82

✓ Correct: 16

✗ Incorrect: 66

Average Score: 19.51 %

Question 84 of 247

Question Difficulty:

Hard

On investigating Mr. X with a long history with severe anemia it was found to have number of hamatomatous polyps on an upper GI endoscopy. He has a family history of pancreatic and colonic cancer.

Examination reveals patches of pigmentation on his lips and palms. Investigations reveal:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
Mean corpuscular volume	70 fl	80-100 fl
Mean corpuscular hemoglobin	22 pg/cell	25-43.4 pg/cell
Erythrocyte count	3.5 million/mm ³	(4.3-5.9 million/mm ³)
Leukocyte count	7 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	190 k/mm ³	(150-450 million/mm ³)
ESR	15 1st hour	(10-20 1st hour)

What is the most likely diagnosis?

- ☐ Gardner syndrome
- ☐ Diverticular disease
- ☐ Familial adenomatosis polyposis
- ☐ Colorectal cancer
- ☒ Peutz-Jeghers syndrome

Description

Peutz-Jeghers syndrome (PJS) is an autosomal dominant inherited disorder characterized by intestinal hamatomatous polyps in association with a distinct pattern of skin and mucosal macular melanin deposition.

It is manifested by hematemesis, melena or rectal bleeding due to intestinal hamatomatous polyps. mucocutaneous pigmentation may be present on the lips and buccal mucosa and around the mouth, eyes, and nostrils and sever iron deficiency anemia

CHECK ANSWER

END SESSION

NEXT

Question 85 of 247

Question Difficulty:

Hard

Mr. X is complaining of a longstanding history of reflux is referred by his GP to the gastroenterology clinic. His symptoms are resistant to PPI therapy.

An endoscopy was performed and demonstrates esophagitis with wide flat 3 segments of Barrett esophagus. Biopsy shows high grade metaplasia.

What is the management of choice?

- ☐ Endoscopic ablation
- ☐ High-dose PPI and endoscopic surveillance every 2 years
- ☒ Endoscopic mucosal resection
- ☐ Low-dose PPI and endoscopic surveillance every 2 years
- ☐ High-dose PPI and endoscopic surveillance every 12 months

Description

NICE guidelines 2010 of management of high grade metaplasia of Barrett esophagus recommend endoscopic ablation is first-line therapy for flat high-grade dysplasia. Endoscopic mucosal resection is used to treat localized lesions.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 84

✓ Correct 17

✗ Incorrect 67

✓ Average Score: 20.24 %

Question 86 of 247

Question Difficulty:

Hard

Mr. X with a long history of ulcerative colitis is complaining of painless jaundice and weight loss for 3 weeks.

Examination he is cachectic with profound jaundice. Abdominal ultrasound show intrahepatic biliary stenosis with post stenotic dilatation.

Investigations show:

Hemoglobin	11 g/dL	(13.5-17.5 g/dL)
Mean corpuscular volume	92 fl	80-100 fl
Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	69 mmol/L	(53-106 mmol/L)
Bilirubin	88 µmol/L	(2-17 µmol/L)
ALT	60 U/L	(8-20 U/L)
Serum creatine kinase	1205 U/L	(25-90 U/L)
ESR	110 1st hour	(< 10)

Which of the following investigations would confirm diagnosis?

Serum creatinine	69 mmol/L	(53-106 mmol/L)
Bilirubin	88 µmol/L	(2-17 µmol/L)
ALT	60 U/L	(8-20 U/L)
Serum creatine kinase	1205 U/L	(25-90 U/L)
ESR	110 1st hour	(< 10)

Which of the following investigations would confirm diagnosis?

- ☐ Antimitochondrial antibody (AMA)
- ☒ Alfa-fetoprotein
- ☐ MRCP
- ☐ ERCP
- ☐ Abdominal CT scan

Description

This patient has cholangiocarcinoma. It is presented by features of obstructive jaundice (clay-colored stools, bilirubinuria and pruritus) weight loss and abdominal pain. It is commonly associated with primary sclerosing cholangitis and inflammatory bowel diseases.

ERCP is the procedure of choice; it is useful for biopsy and also for palliative stenting to relieve biliary obstruction.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 85

Correct: 17

Incorrect: 68

Average Score: 20 %



Question 87 of 247

Question Difficulty:

Hard

Mr. X was referred by his GP with abnormal liver function tests. The only past medical history is a recent diagnosis of diabetes mellitus.

Examination shows he is tanned, there is evidence of clubbing and he has spider nevi over the anterior chest wall. Abdominal examination reveals tender hepatomegaly 4 cm below the costal margin.

His investigations show:

Hemoglobin	11.5 g/dL	(13.5-17.5 g/dL)
Serum iron	44 µmol/l	(12-30 µmol/l)
Transferrin saturation	66 %	(20-50%)
Ferritin	520 µg/l	(15-300 µg/l)

What is the management of choice?

- ☐ Aspirin
- ☐ Follow up
- ☐ Penicillamine
- ☒ Desferrioxamine
- ☐ Venesection

Description

This patient has hemochromatosis. Venesection is the management of choice to rid the body of excess iron, targeting serum ferritin to be < 50 µg/l and transferrin saturation < 50%. It is contraindicated if the patient is anemic so chelation therapy by desferrioxamine is indicated.

CHECK ANSWER

END SESSION

NEXT

Question 88 of 247

Question Difficulty:

Easy

Mr. X is complaining of increasing weight loss, episodes of vomiting blood, and dark stool for the past 4 months. He has 30 pack-years smoking history and consumes 3 pints of alcohol every day.

Examination reveals he is cachectic and he lost 2 stones of weight. Abdominal examination reveals an epigastric mass. Investigation reveals:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
Erythrocyte count	3.5 million/mm ³	(4.3-5.9 million/mm ³)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Platelets	210 k/mm ³	(150-450 million/mm ³)
ALT	110 U/L	(8-20 U/L)
AST	60 U/L	(8-20 U/L)
Serum creatinine	88 mmol/L	(53-106 mmol/L)

What is the most likely diagnosis?

- ☐ Pancreatic carcinoma
- ☐ Gastric ulcers
- ☐ Helicobacter gastritis
- ☒ Gastric carcinoma
- ☐ Gastric lymphoma

Description

This clinical picture of anemia, weight loss, epigastric mass and hematemesis is suggestive of gastric cancer. Pancreatic cancer could produce a similar clinical picture without hematemesis and melena.

CHECK ANSWER

END SESSION

NEXT

Question 89 of 247

Question Difficulty:

Hard

Mr. X is complaining of 2 weeks of severe itching and yellowish discoloration of her sclera and skin. She denied any abdominal pain or change in her bowel habits.

Examination shows xanthelasma and scratch marks consistent with her history of itching. Investigations reveal:

Bilirubin	62 µmol/L	(2-17 µmol/L)
ALT	121 U/L	(8-20 U/L)
AST	110 U/L	(8-20 U/L)
Serum creatine kinase	460 U/L	(25-90 U/L)
Serum creatinine	67 mmol/L	(53-106 mmol/L)
Hemoglobin	10 g/dL	(12.0-16.0 g/dL)
Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
IgM	450 mg/dL	(40-345 mg/dL)
IgG	820 mg/dL	(650-1500 mg/dL)
AMA	positive	

What is the most likely diagnosis?

- ☐ Pancreatic carcinoma
- ☐ Autoimmune hepatitis
- ☒ Primary biliary cirrhosis
- ☐ Chronic hepatitis B infection
- ☐ Primary sclerosing cholangitis

Description

Primary biliary cirrhosis (PBC) is a chronic autoimmune disease of the liver that leads to progressive cholestasis and often end-stage liver disease. PBC is presents frequently in women especially between the fourth and sixth decades.

It is manifested by cholestatic picture (significant elevations of the alkaline phosphatase with mild elevation of aminotransferases).

Antimitochondrial antibody (AMA) is diagnostic; it positive is in 98% of cases.

Question 90 of 247

Question Difficulty:

Hard

Mr. X is complaining of sharp central epigastric pain and vomiting for 10 days. On questioning he reports the pain is relieved by food. He has no hematemesis and never noticed dark stool. He has 30 pack/year smoking history and drinks 2 pints of alcohol daily. He has no past medical history.

Endoscopy reveals an ulcer in the cardia of the stomach. Stool antigen was positive for *H. pylori*.

What is the management of choice?

- ☐ Metronidazole, clarithromycin and PPI for 1 month
- ☐ Amoxicillin, clarithromycin and PPI for 2 months
- ☐ Amoxicillin and clarithromycin for 7 days and PPI for 1 month
- ☒ Amoxicillin and clarithromycin for 7 days and PPI for 2 months
- ☐ Amoxicillin, clarithromycin and PPI for 7 days

Description

NICE suggest peptic ulcer disease with positive *H. pylori* is managed by *H. pylori* eradication (7-day, twice-daily course of amoxicillin and either clarithromycin or metronidazole) and acid suppression with proton pump inhibitors (PPIs) or histamine-2 receptor antagonists (H2RA) for 6 to 8 weeks.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 89

✓ Correct 19

✗ Incorrect 70

📊 Average Score: 21.35 %

Question 91 of 247

Question Difficulty:

Hard

Mr. X was complaining of jaundice and right upper abdominal pain for 4 weeks. Investigations show:

Bilirubin	28 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	1200 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBsAg	positive	
HBeAg	negative	
IgG anti-HBc	positive	
HBV DNA	positive	

Liver biopsy show minimal inflammation with no fibrosis.

What is the management of choice?

- ☐ Tenofovir
- ☐ Entecavir
- ☒ Peginterferon alfa-2a for 24 weeks
- ☐ Lamivudine
- ☐ Peginterferon alfa-2a for 48 weeks

Description

This patient has HBeAg-negative chronic hepatitis B due to positive HBsAg, IgG anti-HBc and HBV DNA associated with negative HBeAg. He has compensated liver disease; peginterferon alfa-2a for 48 weeks is the first-line agent, tenofovir and entecavir as an alternative second-line treatment.

CHECK ANSWER

END SESSION

NEXT

Question 92 of 247

Question Difficulty:

Easy

Mr. X is complaining of 12-month history of intermittent lower back and right knee pain and diarrhea. He has past medical history of bacterial endocarditis.

Investigations reveal macrocytic anemia and hypoalbuminemia. Stool analysis was negative for bacteria and shows malabsorption. Duodenal biopsy shows villous atrophy and PAS-positive macrophages in the lamina propria.

What is the management of choice?

- ☐ Prednisolone
- ☒ Hydroxychloroquine for 15 months
- ☐ Doxycycline for 2 months
- ☒ Mesalazine
- ☐ Refer for duodenal resection

Description

This patient has Whipple disease. It is manifested by malabsorption, non-destructive seronegative arthritis of large joints, lymphadenopathy, uveitis, endocarditis and CNS dementia, confusion, headaches and seizures.

Duodenal biopsy shows villous atrophy and diagnosis is confirmed by the presence of PAS-positive macrophages in the lamina propria containing non-acid-fast gram-positive bacilli.

Management is by prolonged course of doxycycline with hydroxychloroquine for 12 to 18 months, sulfonamides may be added for treatment of neurological symptoms.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 91

✓ Correct 19

✗ Incorrect 72

Average Score: 20.88

Question 93 of 247

Question Difficulty:

Hard

Mr. X is complaining of flaring up of ulcerative colitis with bloody diarrhoea, tenesmus and crampy abdominal pain. He was stabilized previously on oral mesalazine and added oral prednisolone had progressive improvement.

Colonoscopy reveals widespread superficial ulceration on the ascending colon and biopsy reveals high-grade dysplasia.

What is the management of choice?

- ☐ Follow up
- ☐ Stop prednisolone and continue oral mesalazine
- ☒ Referral for surgical hemi-colectomy
- ☐ Total parenteral nutrition
- ☐ Add infliximab

Description

NICE 2013 guidelines suggest management of acute ulcerative colitis by:

- Step 1: Oral aminosalicylates with or without topical mesalazine or steroids
- Step 2: IV ciclosporin plus IV corticosteroids
- Step 3: surgical referral for people who have little or no improvement within 72 hours of starting IV corticosteroids or whose symptoms worsen at any time despite corticosteroid treatment.

High grade dysplasia and adenocarcinoma are also indications for surgical intervention.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 92

Correct 19

Incorrect 73

Average Score: 20.65 %

Question 94 of 247

Question Difficulty:

Hard

On screening Mr. X who is complaining of jaundice, his viral serology reveals:

- HBSAg negative
- IgG anti-HBc positive
- Anti-HBSAg negative
- HBV DNA negative
- Anti-HCV positive
- HCV RNA PCR negative

What is the most likely diagnosis?

- ☐ HCV infection and previous HBV infection
- ☐ Previous HCV infection and HBV vaccination
- ☒ HBV infection and previous HCV infection
- ☐ Previous HCV and HBV infection
- ☐ Previous HBV infection and HCV vaccination

Description

- ☐ HCV infection and previous HBV infection
- ☐ Previous HCV infection and HBV vaccination
- ☒ HBV infection and previous HCV infection
- ☐ Previous HCV and HBV infection
- ☐ Previous HBV infection and HCV vaccination

Description

Anti-HCV indicates previous or current HCV infection but the HCV RNA PCR negative so there was a past HCV infection.

IgG anti-HBc positive with negative HBSAg indicates cleared previous HBV infection. In HBV vaccination Anti-HBSAg is positive.

CHECK ANSWER

END SESSION

NEXT

Question 95 of 247

Question Difficulty:

Hard

Mr. X is complaining of profuse diarrhea. He was discharged 6 days earlier from the orthopedic ward where was treated for a septic arthritis and he had been treated with clindamycin.

Examination shows he is drowsy and dehydrated with lower abdominal tenderness. Sigmoidoscopy reveals hemorrhagic colitis. Investigations reveal:

Serum creatinine	150 mmol/L	(63-106 mmol/L)
Serum urea	8.2 mmol/L	(2.5-7.1 mmol/L)
Hemoglobin	13 g/dL	(13.5-17.5 g/dL)
Leukocyte count	14 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	140 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)

What is the most likely diagnosis?

- ☐
 Ulcerative colitis
- ☐
 Salmonellosis
- ☐
 Hemolytic uremic syndrome
- ☒
 Pseudomembranous colitis
- ☐
 Enteric parasitic infection

Description

This patient has pseudomembranous colitis. Pseudomembranous colitis is inflammation of the large intestine resulting from infection with Clostridium difficile. It occurs when this bacteria replaces normal gut flora that has been compromised usually following antibiotic treatment for an unrelated infection.

CHECK ANSWER

END SESSION

NEXT

Question 96 of 247

Question Difficulty: **Easy**

Mr. X who recently had an upper respiratory tract infection is referred with the following blood results:

Bilirubin	40 µmol/L (unconjugated)		
ALT	23 U/L	(8-20 U/L)	
AST	19 U/L	(8-20 U/L)	
Serum creatine kinase	103 U/L	(25-90 U/L)	

Which investigation would help in diagnosis?

- ☐ Urine analysis
- ☐ Bromsulphthalein excretion test
- ☒ Nicotinic acid test
- ☐ Ammonium chloride acidification test
- ☐ Fecal fat excretion

- ☐ Urine analysis
- ☐ Bromsulphthalein excretion test
- ☒ Nicotinic acid test
- ☐ Ammonium chloride acidification test
- ☐ Fecal fat excretion

Description

This patient has Gilbert syndrome. It is a genetic liver disorder caused by reduction in the glucuronidase enzyme activity causes unconjugated hyperbilirubinemia. Mild jaundice may appear under conditions of exertion, stress, fasting, and infections, but the condition is otherwise usually asymptomatic.

Fasting test and Nicotinic acid test would confirm diagnosis.

CHECK ANSWER

END SESSION

NEXT

Question 97 of 247

Question Difficulty:

Hard

Mr. X is complaining of 4-week history of increasing abdominal swelling and swollen ankles. Examination reveals his abdomen is soft and non-tender with shifting dullness. Ultrasound scan of his abdomen shows large amount of ascites.

Tapping of fluid reveals neutrophil count of 30 /mm³, amylase of 40 IU/L and protein of 35 g/L.

What is the most likely diagnosis?

- ☐ Liver cirrhosis
- ☐ Pancreatitis
- ☒ Budd-Chiari syndrome
- ☐ Heart failure
- ☐ Hypothyroidism

Description

This patient has exudative ascites due to high ascitic fluid protein >30g/L. Hypothyroidism and pancreatitis are the only listed diseases to cause exudative ascites. Due to normal ascetic fluid amylase, pancreatitis could be excluded.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

👤 Answered 96

✓ Correct 20

✗ Incorrect 76

📊 Average Score: 20.83 %

Question 98 of 247

Question Difficulty:

Hard

A baby was born to a mother who had acute hepatitis B during last trimester of pregnancy.
What is the management of choice for the newborn?

- ☐ Peginterferon
- ☐ Vaccination
- ☒ Vaccination + hepatitis B immunoglobulin
- ☐ Entecavir
- ☐ Follow up with serological investigations

Description

Babies born to mothers who are chronically infected with hepatitis B or to mothers who've had acute hepatitis B during pregnancy should receive a complete course of vaccination + hepatitis B immunoglobulin.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 97

✓ Correct: 20

✗ Incorrect: 77

📊 Average Score: 20.62 %

Question 99 of 247

Question Difficulty:

Hard

Mr. X is complaining of epigastric pain, hematemesis and diarrhoea for 3 weeks. He smokes 25 cigarettes per day and drinks 40 unites of alcohol per week. His GP prescribed him famotidine which have produced partial relief of his symptoms.

An upper gastrointestinal reveals 3 duodenal and 2 gastric ulcers.

Which of the following investigation would confirm diagnosis?

- ☒ Fasting gastrin of 430 pg/ml
- ☐ Gastric PH of 2.2
- ☒ Serum gastrin is 3200 pg/mL post secretin injection
- ☐ Gastric acid secretion of 8 mEq/hour
- ☐ Abdominal CT

Description

This patient has Zollinger-Ellison syndrome. It is caused by a non-beta islet cell gastrin-secreting tumor of the pancreas that stimulates the acid-secreting cells of the stomach. It is typically presents with multiple gastroduodenal ulcers causing abdominal pain and diarrhoea.

Fasting gastrin > 1000 pg/ml (100-150 pg/ml) is most diagnostic. Secretin stimulation test is positive if serum gastrin is > 200 pg/mL post secretin injection. Other findings include gastric acid secretion > 15 mEq/hour (normal is < 10 mEq/hour) and gastric pH is < 2.

Abdominal CT scan is used to localize the tumor and for evaluation for metastatic disease.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 98

✓ Correct 20

✗ Incorrect 78

Average Score: 20.41 %

Question 100 of 247

Question Difficulty:

Hard

Mrs. X who in her last trimester of pregnancy was complaining of jaundice. Investigations show:

Bilirubin	28 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	943 U/L	(8-20 U/L)
Serum creatine kinase	176 U/L	(25-90 U/L)
HbsAg	positive	
HBeAg	positive	
IgM anti-HBc	positive	
HBV DNA	10^7 IU/ml	

What is the management of choice?

- ☐ HBV immunoglobulin
- ☐ Entecavir
- ☐ Peginterferon alfa-2a
- ☐ Follow up till delivery
- ☒ Tenofovir

Description

Pregnant women with HBV DNA greater than 10^7 IU/ml should be offered tenofovir in the third trimester to reduce the risk of transmission of HBV to the baby.

CHECK ANSWER

END SESSION

NEXT

Question 101 of 247

Question Difficulty:

Hard

Mr. X is complaining of sharp central epigastric pain and vomiting for 5 days. On questioning he reports the pain is related to meal as it starts 1 hour post meal and is relieved by food. He has no hematemesis but noticed dark stool.

He has 30 pack/year smoking history and drinks 2 pms of alcohol daily. He has no past medical history.

Abdominal examination reveals tenderness in the epigastrium. His bowel movement is normal. He has no organomegaly.

What is the most likely diagnosis?

- ☐ Gastric ulcer
- ☐ Gall stones
- ☐ Acute pancreatitis
- ☒ Chronic pancreatitis
- ☐ Duodenal ulcer

Description

This patient is complaining of peptic ulcer. Peptic ulcer is manifested by dyspepsia, epigastric tenderness and hematemesis or melena.

Epigastric pain which is relieved with food is associated with duodenal ulcer and pain exaggerated by food is associated gastric ulcer and acute pancreatitis.

Acute pancreatitis and gall stones are not associated with GIT bleeding.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 100

✓ Correct 21

✗ Incorrect 79

📊 Average Score 21 %

Question 102 of 247

Question Difficulty:

Hard

During an occupational health screen of Mr. X, hepatitis B serology showed the following results:

- HBsAg positive
- HBeAg negative
- HBV DNA negative
- IgG anti-HBc positive
- IgM anti-HBc negative

What is the most likely diagnosis?

- ☐ Chronic active hepatitis B disease
- ☒ Hepatitis B carrier
- ☐ HBeAg-negative chronic hepatitis B
- ☐ Previous HBV immunization
- ☐ Acute hepatitis B disease

Description

HBV carrier is manifested by positive HBsAg and IgG anti-HBc with negative HBV DNA.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 101

✓ Correct 21

✗ Incorrect 80

📊 Average Score: 20.79 %

Question 103 of 247

Question Difficulty:

Hard

Mr. X with a history of chronic HBV presents with jaundice, weight loss and malaise. His viral serology shows:

- IgM anti-HBc negative
- IgG anti-HBc positive
- IgM anti-delta positive

What is the most likely diagnosis?

- ☐ Hepatitis E
- ☒ Hepatitis D
- ☐ Hepatitis B
- ☐ Hepatitis A
- ☒ Hepatitis C

Description

Hepatitis D virus (HDV) is an RNA virus. HDV causes a co-infection and super-infection in cases with hepatitis B virus (HBV).

Diagnosis is by finding serum IgM anti-delta with positive anti-HBc IgG (chronic HBV) and negative for IgM anti-HBc (no HBV acute infection).

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 102

✓ Correct 21

✗ Incorrect 81

📈 Average Score: 20.59 %

Question 104 of 247

Question Difficulty:

Hard

Mr. X is suffering from presents with a 40 day history of watery, non-bloody diarrhoea associated with anorexia and abdominal bloating. His symptoms started after returning from a trip to Pakistan.

Examination reveals he is apyrexial with mildly dry mucous membranes but normal skin turgor. Abdominal examination shows mild lower abdominal tenderness with no guarding or rigidity.

What is the management of choice?

- ☐ Ciprofloxacin
- ☒ Short course metronidazole
- ☐ Benzylpenicillin
- ☒ Hydroxychloroquine
- ☐ Long course metronidazole

Description

This patient is complaining of Giardiasis. It has a long incubation period (more than a month) and causes prolonged, non-bloody diarrhoea with flatulence, cramps, bloating and nausea.

Short course of metronidazole is the management of choice.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 103

✓ Correct 21

✗ Incorrect 82

📊 Average Score: 20.39 %

Question 105 of 247

Question Difficulty:

Hard

Mr. X is complaining of long history of dyspepsia, diarrhoea and vomiting. He drinks 35 units of alcohol per week and smokes 10 cigarettes per day.

An upper gastrointestinal endoscopy reveals esophagitis, hypertrophy of the gastric body and multiple duodenal ulcers. Abdominal CT shows ill-defined lesion in the pancreas with liver and contralateral abdominal lymph node metastasis.

What is the management of choice?

- ☒ Octreotide
- ☐ Surgical resection
- ☐ Follow up
- ☐ Radiotherapy
- ☒ High dose proton pump inhibitors

Description

This patient has Zollinger-Ellison syndrome. It is caused by a non-beta islet cell, gastrin-secreting tumor of the pancreas that stimulates the acid-secreting cells of the stomach.

Abdominal CT shows metastatic tumor. Surgical resection is the management of choice for non-metastatic tumors. Metastatic disease is managed by chemotherapy, interferon and octreotide.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 104

✓ Correct 21

✗ Incorrect 83

Average Score: 20.19 %

Question 106 of 247

Question Difficulty:

Hard

Mr. X is seeking medical advice as he finds difficulty on his asthma control for the past 6 months. He was diagnosed for BA 4 year and was controlled by inhaled salbutamol and beclomethasone.

On questioning he reports difficult swallowing for both solids and liquids for 9 months and dyspepsia for 12 months. He has lost 4 pounds in 2 months. His CXR shows widened mediastinum.

What is the diagnostic procedure for his disease?

- ☐ Barium swallow
- ☐ Sputum analysis
- ☒ Esophageal manometry
- ☐ 24 H esophageal PH monitoring
- ☐ HRCT chest

Description

This patient is complaining of achalasia. It is a primary esophageal motility disorder. It is manifested by long history of dysphagia of both liquids and solids from the start. It is complicated by regurgitation causing cough, aspiration pneumonia and bronchial asthma.

Esophageal manometry is the main diagnostic procedure; it shows increased lower esophageal sphincter tone.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 105

✓ Correct: 21

✗ Incorrect: 84

📊 Average Score: 20 %

Question 107 of 247

Question Difficulty:

Hard

Mr. X is complaining of 5-month history of right-sided abdominal pain, watery diarrhea and one stone weight loss. He had past history of Crohn disease and had right hemi-colectomy 7 months ago.

Investigations reveal megaloblastic anemia and ESR was 8 (10-20 1st hour). 14C glycolate test was abnormal. Upper GI endoscopy and colonoscopy were unremarkable.

What is the most likely diagnosis?

- ☐ Bacterial overgrowth
- ☒ Bile acid malabsorption
- ☐ Short bowel syndrome
- ☐ Reactivated Crohn disease
- ☐ Cryptosporidium infection

Description

Bile acid malabsorption and short bowel syndrome complicating Crohn disease cause chronic diarrhea and malabsorption. Bile acid malabsorption is differentiated by positive 14C glycolate test.

Absent bloody diarrhea and non-elevated inflammatory markers excludes reactivated Crohn disease.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 106

✓ Correct 21

✗ Incorrect 85

📊 Average Score: 19.81 %



Question 108 of 247

Question Difficulty:

Average

Mrs. X is 20 years is complaining of intermittent abdominal distension and bloating interspersed with bouts of loose motions for 8 months. She also reports changes with her menstrual cycle and worsening of symptoms in the premenstrual period. She had past medical history of depression.

Examinations were unremarkable. Upper and lower GI endoscopy are normal. Investigations reveal:

Hemoglobin	11.5 g/dL	(12.0-16.0 g/dL)
MCV	78 fl	80-100 fl
Leukocyte count	$9 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
ESR	8	(10-20 1 st hour)
Serum albumin	38	(35 - 50 g/L)

Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
ESR	8	(10-20 1 st hour)
Serum albumin	38	(35 - 50 g/L)

What is the most likely diagnosis?

- ☐ Irritable bowel syndrome
- ☐ Diverticulitis
- ☐ Peptic ulcer disease
- ☐ Ulcerative colitis
- ☒ Chronic pancreatitis

Description

Diagnosis of IBS is considered if there is abdominal pain or discomfort that is either relieved by defecation or associated with altered bowel frequency or stool form for at least 6 months. This should be accompanied by at least two of the following four symptoms:

- Altered stool passage (straining, urgency, incomplete evacuation)
- Abdominal bloating or distension
- Symptoms made worse by eating
- Passage of mucus

Other associations

- Sexual dysfunction due to poor libido
- Worsening of symptoms in the premenstrual period
- Stress related symptoms

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 107

Correct: 21

Incorrect: 86

Average Score: 19.63 %

Question 109 of 247

Question Difficulty:

Hard

Mr. X is complaining of worsening dyspepsia weight loss and night sweats. He has a long history of GERD. Upper GI endoscopy reveals rigid folds of mucosa in the stomach. Biopsy reveals large numbers of lymphocytes.

What is the management of choice?

- ☐ Cyclophosphamide
- ☐ High dose dexamethasone
- ☒ Amoxicillin, clarithromycin and PPI
- ☐ High dose PPI
- ☐ Partial gastrectomy

Description

MALT lymphoma is a B-cell lymphoma involving the mucosa-associated lymphoid tissue frequently of the stomach. It is mostly a complication of H. pylori infection as in this case due to long history of GERD.

Helicobacter pylori eradication is the management of choice. Surgical resection is indicated if medical therapy fails.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 108

✓ Correct: 21

✗ Incorrect: 87

📊 Average Score: 19.44 %

Question 110 of 247

Question Difficulty:

Hard

Mr. X is complaining of retrosternal pain, dysphagia and weight loss. Barium swallow shows irregular filling defect with shouldering.

Endoscopy and biopsy confirmed squamous cell carcinoma in the upper esophageal segment. CT chest shows the tumor is invading the esophageal wall reaching the larynx with ipsilateral 2 lymph node metastasis.

What is the management of choice?

- ☒ Combined radiation and chemotherapy
- ☐ Esophagectomy
- ☐ Local destruction by laser
- ☐ Stent application
- ☐ Radiotherapy

Description

Combined radiation therapy and chemotherapy are used for locally spread tumor. Esophagectomy is the management of choice for non-metastatic tumors (Stage I and II). Palliative maneuvers (stent application, local destruction by laser) are used for more advanced tumors.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 109

✓ Correct: 22

✗ Incorrect: 87

📈 Average Score: 20.18 %

Question 111 of 247

Question Difficulty:

Hard

Mr. X is suffering from profuse diarrhoea associated with tenesmus for 2 days. Stool examination reveals blood and mucus. He also complains of fever and myalgia.

What is the most likely causative organism?

- ☐ Salmonella
- ☐ Campylobacter
- ☒ Escherichia coli
- ☐ Amebiasis
- ☐ Shigella

Description

Shigellosis is responsible for bacillary dysentery. Shigellosis is manifested by bloody diarrhoea, abdominal cramping, vomiting, tenesmus and fever. Incubation period is 2-3 days.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 110

✓ Correct: 22

✗ Incorrect: 88

📊 Average Score: 20 %

Question 112 of 247

Question Difficulty:

Hard

Mr. X is complaining of rectal bleeding and changes in bowel habit for 2 weeks. Colonoscopy reveals an irregular mass in the descending colon. Biopsy reveals a colorectal cancer involving the innermost lining of the colon. CT denies and lymph node involvement.

What is the expected 5 year survival for him?

- ☐ 60%
- ☐ 68%
- ☒ 98%
- ☐ 45%
- ☐ 80%

Description

Dukes staging of colorectal cancer

- Dukes' A: Invasion is only in the innermost lining, 5 year survival is 95- 100%
- Dukes' B: Invasion through the bowel wall penetrating the muscle layer but not involving lymph nodes, 5 year survival is 85- 75%
- Dukes' C: Involvement of lymph nodes, 5 year survival is 65- 40%
- Dukes' D: Widespread metastases, 5 year survival is 5- 10%

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 111

✓ Correct 22

✗ Incorrect 89

📊 Average Score: 19.82 %

Question 113 of 247

Question Difficulty:

Hard

Mr. X is awaiting discharge from the gastroenterology ward after an episode of hematemesis related to esophageal varices. He received injection sclerotherapy at the time. He has past medical history of liver cirrhosis, bronchial asthma and type II diabetes.

What is management of choice for preventing recurrence of variceal bleeding?

- ☐ Lactulose
- ☐ Propranolol
- ☐ Furosemide
- ☒ Isosorbide dinitrate
- ☐ Endoscopic variceal ligation

Description

Propranolol is of choice in reducing variceal rebleeding and mortality by decreasing portal hypertension. Prophylactic endoscopic variceal ligation is performed if propranolol is contraindicated as in this case due to bronchial asthma.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 112

✓ Correct 23

✗ Incorrect 89

📊 Average Score: 20.54 %

Question 114 of 247

Question Difficulty:

Average

Mr. X was admitted due to progressive abdominal swelling. Investigations show:

Bilirubin	28 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	680 U/L	(8-20 U/L)
Serum creatine kinase	192 U/L	(25-90 U/L)
HBsAg	positive	
IgM anti-HBc	positive	
HBV DNA	12000 IU/ml	
HCV RNA PCR	positive	

What is the management of choice?

- ☒ Peginterferon alfa and ribavirin
- ☐ Entecavir
- ☐ Tenofovir
- ☐ Peginterferon alfa-2a
- ☒ Lamivudine

Description

This patient has acute HBV co-infection with HCV due to positive HBsAg and HCV RNA PCR.

Peginterferon alfa and ribavirin is the management of choice.

CHECK ANSWER

END SESSION

NEXT

Question 115 of 247

Question Difficulty:

Hard

Mr. X is complaining of fever, rigors and headache 7 days after ERCP extraction of a biliary stone. Examination shows he was febrile. Abdominal examination reveals tenderness in the right upper quadrant.

CXR shows sub-diaphragmatic air-fluid level. Abdominal ultrasound shows an enlarged cyst fill of fluid in the posterior wall of the right lobe of the liver. Investigations show:

Serum creatinine	75 mmol/L	(53-106 mmol/L)
Hemoglobin	14 g/dL	(Male: 13.5-17.5 g/dL)
Leukocyte count	$16.2 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Platelets	160 m/mm ³	(150-450 million/mm ³)
Neutrophils	$13.5 \times 10^9 /L$	$(2.5-7.5 \times 10^9 /L)$
Lymphocytes	$1.6 \times 10^9 /L$	$(1.5-3.5 \times 10^9 /L)$
ESR	35 1 st hour	(10 1 st hour)

What is the management of choice?

What is the management of choice?

- ☐ ERCP drainage
- ☐ Ceftriaxone + metronidazole
- ☒ Surgical drainage
- ☐ Clindamycin + Ciprofloxacin
- ☐ Penicillin + metronidazole

Description

This patient has a pyogenic liver abscess. Biliary disease accounts for 21-30% of cases. It is manifested by fever, enlarged tender liver and pleural effusion.

Liver abscesses are managed with antibiotics (empirically with penicillin + metronidazole until culture and sensitivity results) and catheter drainage.

Surgical drainage is indicated in:

- Abscess that is not amenable to percutaneous drainage because of its location (as this case)
- Coexistence of intra-abdominal disease
- Failure of antibiotic therapy
- Failure of percutaneous aspiration or drainage

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 114

✓ Correct: 23

✗ Incorrect: 91

Average Score: 20.18 %

Question 116 of 247

Question Difficulty:

Hard

Mr. X is complaining of dyspepsia, early satiety, a feeling of bloating after meals and weight loss. He has past medical history of peptic ulcer and he is on management with daily omeprazole.

Investigations reveal:

Hemoglobin	11 g/dL	(13.5-17.5 g/dL)
MCV	108 fl	80-100 fl
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
ESR	6	(10-20 1st hour)
Serum albumin	30	(35 - 50 g/L)

What is the most likely diagnosis?

- ☐ Crohn disease
- ☒ Tropical sprue
- ☐ Celiac disease
- ☒ Bacterial overgrowth syndrome
- ☐ Whipple disease

Description

Bacterial overgrowth syndrome is a disorder of excessive bacterial growth in the small intestine. It is associated with structural abnormalities (congenital or surgical) or decreased gastric acidity. It is manifested by malabsorption, flatulence, abdominal pain, diarrhea and dyspepsia.

CHECK ANSWER

END SESSION

NEXT

Question 117 of 247

Question Difficulty:

Hard

Mr. X with a past history of HIV infection suffering from watery diarrhea. Modified Ziehl-Neelsen stain of the stool shows red-stained rounded oocysts in a green background.

What is the management of choice?

- ☐ Sulfadiazine + pyrimethamine
- ☒ Nitazoxanide
- ☐ Rifampicin
- ☒ Co-trimoxazole
- ☐ Metronidazole

Description

This patient has HIV complicated by Cryptosporidium infection. Nitazoxanide is the management of choice of Cryptosporidium, supportive management is also indicated.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 116

✓ Correct: 24

✗ Incorrect: 92

✓ Average Score: 20.69 %

Question 118 of 247

Question Difficulty:

Hard

Mr. X is complaining of heart burn and epigastric pain. An endoscopy was requested and shows a duodenal ulcer. Stool antigen was positive for *Helicobacter pylori*.

What is the management of choice if he is penicillin allergic?

- ☒ Amoxicillin and metronidazole
- ☐ Ciprofloxacin and metronidazole
- ☐ Chloramphenicol and metronidazole
- ☒ Tetracycline and amoxicillin
- ☐ Clarithromycin and metronidazole

Description

NICE guidelines 2004 suggest a 7-day, twice-daily course with a PPI and amoxicillin and either clarithromycin or metronidazole is the management of choice for eradication of *Helicobacter pylori*. People who are allergic to penicillin offer a 7-day, twice-daily course of treatment with a PPI and clarithromycin and metronidazole.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 117

✓ Correct: 24

✗ Incorrect: 93

📊 Average Score: 20.51 %

Question 119 of 247

Question Difficulty:

Hard

Mr. X is seeking medical advice about chronic diarrhoea which is voluminous and difficult to flush away. He has just returned from a gap year trip to Thailand. He has no past medical history.

Examination shows he looks very thin with a BMI of 19 and he is also pale and has bilateral ankle swelling. Duodenal biopsy shows mild villous atrophy.

Hemoglobin	10.5 g/dL	(13.5-17.5 g/dL)
MCV	103 fl	80-100 fl
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
Serum albumin	33	(35 - 50 g/L)

What is the most likely diagnosis?

- ☐ Cryptosporidium
- ☒ Tropical sprue
- ☐ Crohn disease
- ☒ Whipple disease
- ☐ Celiac disease

Description

Tropical sprue (TS) is a syndrome characterized by acute or chronic diarrhoea, weight loss, and malabsorption of nutrients. It occurs in residents or visitors to the tropics and subtropics. It is caused by intestinal microbial infection results in enterocyte injury, intestinal stasis, and possible bacteria overgrowth and villous atrophy (as in coeliac disease).

CHECK ANSWER

END SESSION

NEXT

Question 120 of 247

Question Difficulty:

Average

Mr. X is complaining of sudden severe epigastric pain associated with vomiting and hematemesis for 3 hours. He has past medical history of myocardial infarction and arthritis and on management with enalapril, bisoprolol and ibuprofen.

Examination shows his BP is 100/50 mmHg, pulse is 100/min regular and he looks unwell. His abdomen is very firm, with tenderness in the epigastrium. His bowel movement is normal. Stool examination reveals melena.

What is the most likely diagnosis?

- ☐ Gall stone
- ☒ Perforated gastric ulcer
- ☐ Gastritis
- ☒ Ruptured esophageal varices
- ☐ Mallory-Weiss tear

Description

This patient is complaining of perforated gastric ulcer due to chronic NSAIDs use. Peptic ulcer is manifested by dyspepsia, epigastric tenderness and hematemesis or melena. Peptic ulcer is the most common cause of upper GI hemorrhage; it accounts for 50% of all cases of upper gastrointestinal hemorrhage.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 119

✓ Correct 24

✗ Incorrect 95

📊 Average Score: 20.17 %

Question 121 of 247

Question Difficulty:

Hard

Mr. X with long history of Crohn disease history of recurrent urinary tract infections, altered bowel habit, brown discoloration of urine and has noticed intermittent air bubbles on passing urine.

What is the management of choice?

- ☐ Infiximab
- ☒ Sulfasalazine
- ☐ Cyclophosphamide
- ☐ Alpha-interferon
- ☐ Cyclosporine

Description

The symptoms are suggestive of development of colovesical fistula. Surgical closure is the management of choice. Infiximab is useful in healing fistulae.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 120

✓ Correct 24

✗ Incorrect 96

📊 Average Score: 20 %

Question 122 of 247

Question Difficulty:

Easy

Mr. X with a past history of extensive small bowel resection for Crohn disease is complaining of 4 months history of right-sided abdominal pain, watery diarrhea and one stone weight loss. He also is suffering from dermatitis, glossitis and angular stomatitis. Investigations reveal:

Bilirubin	8 µmol/L	(2-17 µmol/L)
ALT	18 U/L	(8-20 U/L)
Serum creatinine	88 mmol/L	(53-106 mmol/L)
Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
MCV	112 fL	80-100 fL
Leukocyte count	8 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
ESR	12	(10-20 1st hour)

What is the most likely diagnosis?

- ☐ Coeliac disease
- ☐ Bacterial overgrowth
- ☒ Cryptosporidium infection
- ☐ Reactivated Crohn disease
- ☐ Short bowel syndrome

Description

Short bowel syndrome due to extensive resection leads to chronic diarrhea and malabsorption causing dermatitis and megaloblastic anemia. Absent bloody diarrhea and non-elevated inflammatory markers excludes reactivated Crohn disease.

CHECK ANSWER

END SESSION

NEXT

Question 123 of 247

Question Difficulty:

Hard

Mr. X is complaining diarrhea, fatigue, fevers and right upper quadrant pain. He has a past medical history of rheumatoid arthritis and on continuous management with prednisolone and methotrexate.

Examination shows she has tender hepatosplenomegaly and lymphadenopathy. Investigations show:

Hemoglobin	9 g/dL	(13-17.5 g/dL)
Serum creatinine	102 mmol/L	(53-106 mmol/L)
Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	80 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	138 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)

Which of the following investigations would support diagnosis?

- ☐ Blood cultures
- ☒ Polymerase chain reaction
- ☐ Liver ultrasound
- ☐ ERCP
- ☐ Stool culture

Description

This patient has *Mycobacterium avium* complex. MAC is primarily is atypical mycobacteria that affects individuals who are immune compromised (AIDS, leukemias and immunosuppressive chemotherapy).

It is manifested by fever, sweats, diarrhea, anemia and hepatomegaly with deranged LFTs. Diagnosis is made by blood and bone marrow cultures.

CHECK ANSWER

END SESSION

NEXT

Question 124 of 247

Question Difficulty:

Easy

Mrs. X is 22 years old was complaining of increasing tiredness, amenorrhoea and itching. She has a past history of Hashimoto thyroiditis. Examination reveals scratch marks on her skin, spider nevi and mild jaundice. Abdominal examination shows hepatomegaly. Liver biopsy reveals severe cirrhosis.

What is the management of choice?

- ☒ Liver transplantation
- ☐ Cholestyramine
- ☐ Cyclosporine
- ☐ Prednisolone
- ☐ Azathioprine

Description

This patient has autoimmune hepatitis. It present as acute or chronic hepatitis or fulminant hepatic failure. Extrahepatic symptoms include secondary amenorrhoea, Cushingoid features and hirsutism, arthralgia and pleuritis.

Corticosteroids, either alone or in combination with azathioprine is the mainstay therapy. Liver transplantation is indicated for patients in whom medical therapy has failed or for those with decompensated cirrhosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 123

✓ Correct 24

✗ Incorrect 99

📊 Average Score: 19.51 %

Question 124 of 247

Question Difficulty:

Easy

Mrs. X is 22 years old was complaining of increasing tiredness, amenorrhea and itching. She has a past history of Hashimoto thyroiditis. Examination reveals scratch marks on her skin, spider nevi and mild jaundice. Abdominal examination shows hepatomegaly. Liver biopsy reveals severe cirrhosis.

What is the management of choice?

- ☒ Liver transplantation
- ☐ Cholestyramine
- ☐ Cyclosporine
- ☐ Prednisolone
- ☐ Azathioprine

Description

This patient has autoimmune hepatitis. It present as acute or chronic hepatitis or fulminant hepatic failure. Extrahepatic symptoms include secondary amenorrhea, Cushingoid features and hirsutism, arthralgia and pleuritis.

Corticosteroids, either alone or in combination with azathioprine is the mainstay therapy. Liver transplantation is indicated for patients in whom medical therapy has failed or for those with decompensated cirrhosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 123

✓ Correct: 24

✗ Incorrect: 99

Average Score: 19.51 %

Question 125 of 247

Question Difficulty:

Hard

Mr. X with a past medical history of HIV is suffering from diarrhea, abdominal pain and vomiting for the past week.

Examination shows hilar and abdominal lymphadenopathy. CXR shows pulmonary infiltrates. Investigations show:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	190 k/mm ³	(150-450 million/mm ³)
Neutrophils	5 X10 ⁹ /L	(2.5-7.5 x 10 ⁹ /L)
Lymphocytes	0.3 X10 ⁹ /L	(1.5-3.5 x 10 ⁹ /L)
CD4 T-helper cell	150 /mm ³	1200 /mm ³
ALT	80 U/L	(8-20 U/L)
Serum creatinine	102 mmol/L	(53-106 mmol/L)

Which of the following is the most likely diagnosis?

- ☐ Toxoplasmosis
- ☒ Mycobacterium avium complex
- ☒ Pneumocystis jiroveci
- ☐ Mycobacterium tuberculosis
- ☐ Cryptococcus

Description

MAC is primarily is atypical mycobacteria that affects individuals who are immune compromised (AIDS, leukemias and immunosuppressive chemotherapy).

It is manifested by fever, sweats, diarrhea, anemia and hepatomegaly with deranged LFTs. MAC causes disseminated disease in patients with advanced HIV disease with CD4 is <100 cells/uL.

CHECK ANSWER

END SESSION

NEXT

Question 126 of 247

Question Difficulty:

Hard

Mr. X was diagnosed to have chronic HCV infection. HCV PCR shows moderate viral RNA load. He was started a course of peginterferon alfa and ribavirin.

10 weeks later his symptoms persists and a repeated PCR revealed a moderate viral load.

What is the management of choice?

- ☐ Ribavirin and replace peginterferon alfa with Sofosbuvir
- ☐ Continue current course for 24 weeks
- ☒ Peginterferon alfa and ribavirin and add Sofosbuvir
- ☐ Stop peginterferon alfa and ribavirin and start Sofosbuvir
- ☐ Peginterferon alfa and replace ribavirin with Sofosbuvir

Description

A combination of peginterferon interferon alfa 2a or 2b plus ribavirin are the management of choice for HCV, they are effective in clearing the virus in up to 40-80% of cases.

Sofosbuvir (Sovaidi) is recommended by NICE in 2015 as an adjuvant to other drugs (peginterferon alfa and ribavirin, or ribavirin alone) if they are not effective or not tolerated or the patient has cirrhosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 125

✓ Correct: 25

✗ Incorrect: 100

📊 Average Score: 20 %

Question 127 of 247

Question Difficulty:

Hard

Mr. X is complaining of severe upper abdominal pain radiating to his back, associated with diarrhea, nausea and vomiting. He noticed loose and pale stools and mucus.

Examination reveals jaundice, bluish discoloration around the umbilicus and tenderness in the left hypochondrial region with normal bowel sounds. Investigations show:

Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
ALT	110 U/L	(8-20 U/L)
AST	68 U/L	(8-20 U/L)
Serum amylase	1250 U/L	(25-125 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

What is the most likely diagnosis?

- ☐ Chronic pancreatitis
- ☒ Acute pancreatitis
- ☐ Peptic ulcer
- ☐ Cholecystitis
- ☐ Gall stones

Description

Acute pancreatitis is manifested by epigastric pain radiating to the back, diarrhea, steatorrhea, jaundice. The bluish discoloration around the umbilicus is called Cullen sign.

The high elevation of serum amylase and mild elevation of hepatic enzymes are also features of acute pancreatitis.

CHECK ANSWER

END SESSION

NEXT

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Question 128 of 247

Question Difficulty:

Hard

Mrs. X who is in her 2 trimester of pregnancy is complaining of severe nausea and vomiting. All investigations were normal except she has mild jaundice. Investigations show:

Hemoglobin	11 g/dL	(12.0-16.0 g/dL)
Mean corpuscular volume	88 fl	80-100 fl
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	192 k/mm ³	(150-450 million/mm ³)
Serum creatinine	102 mmol/L	(53-106 mmol/L)
Bilirubin	30 µmol/L	(2-17 µmol/L)
ALT	50 U/L	(8-20 U/L)
Serum creatine kinase	96 U/L	(25-90 U/L)
Urinalysis	++ ketones	

What is the most likely diagnosis?

- ☒ Hyperemesis Gravidarum
- ☐ Acute fatty liver of pregnancy
- ☒ Preeclampsia
- ☐ Intrahepatic cholestasis of pregnancy
- ☐ HELLP syndrome

Description

Hyperemesis Gravidarum is the most severe form of nausea and vomiting in pregnancy, characterized by persistent nausea and vomiting associated with ketosis, mild jaundice and weight loss.

It is manifested by elevated urinary and serum ketones with mild increase in liver enzymes and bilirubin.

Question 129 of 247

Question Difficulty:

Hard

Mrs. X who is 34 weeks pregnant was complaining of nausea, vomiting, and epigastric and right upper quadrant pain.

Examination reveals she is jaundiced with BP of 155/92 mmHg and lower limb edema. Her arms show multiple bruises. Investigations show platelets of 60 million/mm³ (150-450 million/mm³) and ALT 66 U/L (8-20 U/L).

She was referred for delivery. What is the management to be added?

What is the management of choice?

- ☒ Analgesics
- ☐ Diuretics
- ☐ Vitamin K
- ☐ None
- ☐ Magnesium sulfate

Description

This patient has HELLP syndrome. HELLP syndrome (hemolysis, elevated liver enzyme levels, and low platelet levels) is a life-threatening condition that can potentially complicate pregnancy.

The definite management is by initiation of steroids and delivering the baby. It may be considered as a severe form of preeclampsia so prophylaxis is indicated with magnesium sulfate and antihypertensives.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 128

Correct 27

Incorrect 101

Average Score: 21.09 %



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Windows Explorer

Question 130 of 247

Question Difficulty:

Hard

Mr. X is complaining of rapid deteriorating pruritus and weight loss. He has a past medical history of recurrent episodes of ulcerative colitis and a previous of primary sclerosing cholangitis.

Examination he is cachectic with profound jaundice. Abdominal ultrasound show intrahepatic biliary stenosis with post stenotic dilatation.

Investigations show:

Hemoglobin	11 g/dL	(13.5-17.5 g/dL)
Mean corpuscular volume	99 fl	80-100 fl
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	69 mmol/L	(53-106 mmol/L)
Bilirubin	108 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	860 U/L	(25-90 U/L)
ESR	98 1st hour	(< 10)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	860 U/L	(25-90 U/L)
ESR	98 1st hour	(< 10)

What is the most likely diagnosis?

- ☐ Primary biliary cirrhosis
- ☐ Primary carcinoma of the gallbladder
- ☒ Hepatocellular carcinoma
- ☐ Cholangiocarcinoma
- ☐ Ascending cholangitis

Description

Cholangiocarcinoma is malignancy of the biliary duct system. It is presented with features of obstructive jaundice (clay-colored stools, bilirubinuria and pruritus) weight loss and abdominal pain.

It is commonly associated with primary sclerosing cholangitis and inflammatory bowel diseases. Ultrasound shows intra and extrahepatic duct dilatation.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 129

✓ Correct: 27

✗ Incorrect: 102

Average Score: 20.93 %



Question 131 of 247

Question Difficulty:

Hard

Mr. X is complaining of lethargy and increased skin pigmentation. He has past medical history of erectile dysfunction and type I diabetes.

Investigations show:

Hemoglobin	12 g/dL	(13.5-17.5 g/dL)
Serum iron	33 µmol/l	(12-30 µmol/l)
Transferrin saturation	64 %	(20-50%)
Ferritin	460 µg/l	(15-300 µg/l)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 k/mm3	(150-450 million/mm3)
Serum creatinine	107 mmol/L	(53-106 mmol/L)
Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 k/mm3	(150-450 million/mm3)
Serum creatinine	107 mmol/L	(53-106 mmol/L)
Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

Which of the given investigations would confirm diagnosis?

- ☐ Hemoglobin
- ☐ Serum iron
- ☒ Serum creatine kinase
- ☐ Transferrin saturation
- ☐ Ferritin

Description

This patient has hemochromatosis. It is manifested by:

- Hepatomegaly and cirrhosis
- Skin hyperpigmentation, hair loss and koilonychia
- Diabetes mellitus due to iron deposition within the pancreas
- Arthropathy
- Amenorrhea, impotence and hypogonadism due to iron deposition within the pituitary
- Cardiomyopathy

Transferrin saturation levels (> 60%) and serum ferritin (> 500 µg/l) are diagnostic.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 130

Correct: 27

Incorrect: 103

Average Score: 20.77 %

Question 132 of 247

Question Difficulty:

Hard

Mr. X is complaining of bloody diarrhea and vomiting for 5 days. He also reports prodrome of fever, headache and myalgia. He spent a week holiday in a farm and he reports he drank unpasteurized milk.

Examination reveals examination he is pyrexial and dehydrated. Abdominal examination shows right iliac fossa pain. Investigations are normal. Stool microscopy shows no trophozoites, spores or parasites.

What is the most likely causative organism?

- ☒ Staph aureus
- ☒ Campylobacter
- ☐ Shigella
- ☐ Escherichia coli
- ☐ Salmonella

Description

Campylobacter spread by fecal-oral route or ingestion of contaminated food as unpasteurized milk and undercooked or poorly handled poultry. It causes gastroenteritis with bloody diarrhea and dysentery with a prodromal of fever, headache and myalgia. Campylobacter jejuni has an incubation period of 3-5 days.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 131

✓ Correct 27

✗ Incorrect 104

📊 Average Score: 20.61 %

Question 133 of 247

Question Difficulty:

Hard

Mr. X is complaining of right upper quadrant abdominal discomfort for 4 months. He had no past history of note except 2 years history of type-2 diabetes. He does not smoke or drink alcohol. His current medication includes metformin and gliclazide.

All investigations including infective hepatitis screen and autoimmune profile were normal except mildly raised ALT level. Abdominal ultrasound reveals evidence of fatty infiltration of the liver.

What is the most likely diagnosis?

- ☒ Primary biliary cirrhosis
- ☐ Metformin-induced steatohepatitis
- ☐ Acute hepatitis secondary to gliclazide
- ☒ Nonalcoholic fatty liver disease
- ☐ Autoimmune hepatitis

Description

Nonalcoholic fatty liver disease (NAFLD) is a condition caused by fatty infiltration of the liver in the absence of large alcohol consumption that can result in liver failure.

The most significant risk factors for NAFLD include the components of metabolic syndrome: obesity, glucose intolerance or diabetes (Type 2), starvation, and dyslipidemia.

Most patients with NAFLD have few or no symptoms. Patients may complain of dull right upper quadrant abdominal discomfort and mild jaundice with mild elevated liver enzymes.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 132

✓ Correct 27

✗ Incorrect 105

Average Score: 20.45

Question 134 of 247

Question Difficulty:

Easy

Miss X was admitted to emergency department after having ingested a couple of handfuls of paracetamol tablets after an argument with her boyfriend, 4 h previously.

Which of the following markers is the best indicator of prognosis?

- ☐ Prothrombin time
- ☐ ALT
- ☒ Activated partial thrombin time
- ☐ AST
- ☐ Bilirubin

Description

Poor prognostic factors of paracetamol toxicity

- Prothrombin time > 100 seconds (most indicator)
- Metabolic acidosis (Arterial pH < 7.3)
- Creatinine > 300 µmol/l
- Grade III or IV hepatic encephalopathy

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 133

✓ Correct 27

✗ Incorrect 106

📊 Average Score: 20.3 %

Question 135 of 247

Question Difficulty:

Average

33 weeks pregnant Mrs. X was complaining of anorexia, nausea and vomiting. All systematic examinations were normal except tenderness in the right upper quadrant of the abdomen.

Liver ultrasound shows increased echogenicity. Investigations show:

Hemoglobin	11 g/dL	(12.0-16.0 g/dL)
Mean corpuscular volume	88 fl	80-100 fl
Leukocyte count	22 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	102 mmol/L	(53-106 mmol/L)
Bilirubin	55 µmol/L	(2-17 µmol/L)
ALT	780 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

What is the most likely diagnosis?

- ☐ Hyperemesis Gravidarum
- ☐ Hepatitis E
- ☒ Acute fatty liver of pregnancy
- ☐ HELLP Syndrome
- ☐ Intrahepatic cholestasis of pregnancy

Description

Acute fatty liver of pregnancy (AFLP) is a serious complication of pregnancy characterized by microvesicular steatosis in the liver.

It is manifested by elevated white cell count, elevated aminotransferase levels and increased echogenicity in liver ultrasonography.

CHECK ANSWER

END SESSION

NEXT

Question 136 of 247

Question Difficulty:

Average

Mr. X is found to have the following blood results on routine pre-operative blood tests:

Bilirubin	40 µmol/L (unconjugated)	
ALT	23 U/L	(8-20 U/L)
AST	19 U/L	(8-20 U/L)
Serum creatine kinase	103 U/L	(25-90 U/L)

What is the most likely diagnosis?

- ☐ Budd-Chiari syndrome
- ☐ Gilbert syndrome
- ☒ Dubin-Johnson syndrome
- ☐ Sclerosing cholangitis
- ☐ Primary biliary cirrhosis

- ☐ Budd-Chiari syndrome
- ☐ Gilbert syndrome
- ☒ Dubin-Johnson syndrome
- ☐ Sclerosing cholangitis
- ☐ Primary biliary cirrhosis

Description

Gilbert syndrome is a genetic liver disorder caused by reduction in the glucuronidase enzyme activity causes unconjugated hyperbilirubinemia. Mild jaundice may appear under conditions of exertion, stress, fasting, and infections, but the condition is otherwise usually asymptomatic. Dubin-Johnson syndrome causes conjugated bilirubinemia.

CHECK ANSWER

END SESSION

NEXT

Question 137 of 247

Question Difficulty:

Hard

Mr. X is complaining from worsening diarrhoea and intermittent rectal bleeding. He was diagnosed with sigmoid colon ulcerative colitis 2 years ago and is having mesalazine tablets as prophylaxis.

Colonic biopsies show acute active inflammation with total friable mucosa and frequent pseudopolyps.

What is the management of choice?

- ☒ Mesalazine
- ☐ Surgical referral
- ☐ Cyclosporine
- ☒ Infliximab
- ☐ Prednisolone

Description

NICE 2013 guidelines suggest management of acute ulcerative colitis by:

- Step 1: Oral aminosalicylates with or without topical mesalazine or steroids
- Step 2: IV ciclosporin plus IV corticosteroids
- Step 3: surgical referral for people who have little or no improvement within 72 hours of starting IV corticosteroids or whose symptoms worsen at any time despite corticosteroid treatment.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 136

✓ Correct 28

✗ Incorrect 108

📊 Average Score: 20.59 %

Question 138 of 247

Question Difficulty:

Hard

Mr. X is suffering from abdominal pain, bloating and nausea after meals for 3 months. He reported he has lost 6 kg in weight and also had some blood stained diarrhea.

Lower GI endoscopy shows edema of mucosa and submucosa, combined with deep fissured ulcers interspersed with normal looking mucosa 'skipping' with non-caseating granulomas and scanty crypt abscesses.

What is the management of choice?

- ☒ Sulphasalazine
- ☐ Infliximab
- ☐ Metronidazole
- ☐ Methotrexate
- ☐ Prednisolone

Description

This patient has Crohn disease. Corticosteroids are first line drugs, amino-salicylate anti-inflammatory drugs (sulphasalazine and mesalazine) are alternatives. Immunomodulators such as azathioprine, methotrexate and infliximab (useful in healing fistulae) are added to first line drugs not alternatives if first line drugs fail.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 137

✓ Correct 28

✗ Incorrect 109

📈 Average Score: 20.44 %

Question 139 of 247

Question Difficulty:

Hard

Mr. X is complaining of abdominal pain, a fever, nausea and sweats for 4 days after an eventful recent bowel surgery.

Examination reveals he is feverish with no jaundice. Abdominal examination reveals an enlarged tender liver.

CXR shows elevated right hemidiaphragm, sub-diaphragmatic air-fluid level and pleural effusion. Abdominal ultrasonography shows multiple loculated cysts. Investigations show:

Serum creatinine	75 mmol/L	(53-106 mmol/L)
Hemoglobin	14 g/dL	(13.5-17.5 g/dL)
Leukocyte count	$16.2 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Platelets	160 m/mm3	(150-450 m/mm3)
Neutrophils	$13.5 \times 10^9 /L$	$(2.5-7.5 \times 10^9 /L)$
Lymphocytes	$1.6 \times 10^9 /L$	$(1.5-3.5 \times 10^9 /L)$
ESR	35 1 st hour	(10 1 st hour)

What is the most likely diagnosis?

Platelets	160 m/mm3	(150-450 m/mm3)
Neutrophils	$13.5 \times 10^9 /L$	$(2.5-7.5 \times 10^9 /L)$
Lymphocytes	$1.6 \times 10^9 /L$	$(1.5-3.5 \times 10^9 /L)$
ESR	35 1 st hour	(10 1 st hour)

What is the most likely diagnosis?

- ☐ Hydatid Cysts
- ☒ Ascending Cholangitis
- ☐ Pyogenic liver abscess
- ☐ Amoebic Liver Abscess
- ☐ Lung abscess

Description

A pyogenic liver abscess is a type of liver abscess caused mostly by Staph. aureus or E. coli. Biliary disease accounts for 21-30% of cases. It is manifested by fever, enlarged tender liver and pleural effusion.

CXR and AXR shows elevated right hemidiaphragm, sub-diaphragmatic air-fluid level (pneumoperitoneum), Ultrasonography and CT are of choice for detecting liver abscess.

Amebic liver abscess is usually solitary abscess. Hydatid cyst is an enlarged cyst with daughter cysts and calcification.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 138

Correct: 28

Incorrect: 110

Average Score: 20.29 %

Question 140 of 247

Question Difficulty:

Hard

Mrs. X who is in her 3rd trimester presents with right upper abdominal pain, jaundice and ascites worsening over a week. She has no past medical history except recurrent fetal losses.

Examination reveals she is apyrexial, deeply jaundiced with tender hepatomegaly. Investigations show:

Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum creatinine	112 mmol/L	(53-106 mmol/L)
Bilirubin	28 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Ascitic fluid protein	25 g/L	

What is the procedure should be requested for diagnosis?

- ☒ Anti-mitochondrial antibody
- ☐ Color flow Doppler ultrasound of the hepatic vasculature
- ☐ Liver biopsy
- ☐ Serum ceruloplasmin
- ☐ Serum alpha-fetoprotein

Description

This patient has Budd-Chiari syndrome. It is a thrombotic or non-thrombotic obstruction of hepatic venous outflow. It is commonly occurs in association with a hypercoagulable state which is a complication of pregnancy or Lupus anticoagulants. The characteristic manifestations are transudative ascites (high SAAg and ascitic protein < 30 g/L) and tender hepatomegaly.

Imaging studies with color flow Doppler ultrasound and MRI are of choice for assessment of hepatic venous obstruction.

CHECK ANSWER

END SESSION

NEXT

Question 141 of 247

Question Difficulty:

Average

Mr. X years is complaining of severe upper abdominal pain radiating to his back, associated with nausea and vomiting 2 days after having an ERCP for diagnosis of gall stone. He also reports pale and loose stools associated with mucus.

Examination reveals jaundice, reddish-brown discoloration along the flanks. Investigations show serum amylase 1300 U/L (25-125 U/L) and serum creatine kinase 160 U/L (25-90 U/L).

Which of the followings would help in diagnosis?

- ☒ Abdominal CT
- ☐ Upper GI endoscope
- ☐ MRCP
- ☐ Stool analysis
- ☐ Repeat ERCP

Description

This patient has post ERCP acute pancreatitis. It is manifested by epigastric pain radiating to the back, diarrhea, steatorrhea, jaundice. The reddish-brown discoloration along the flanks is called Grey-Turner sign.

Abdominal CT and abdominal ultrasound are considered the gold standard for the diagnosis and evaluation of acute pancreatitis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 140

✓ Correct 28

✗ Incorrect 112

📊 Average Score: 20 %

Question 142 of 247

Question Difficulty:

Hard

Mr. X is complaining of upper abdominal pain which radiates to his back, along with nausea and diarrhea for 6 months. He also reports bulky foul-smelling fatty stools associated with mucus. He has a medical history of asymptomatic gall stones.

Examination shows the abdomen is soft and tender on deep palpation in the epigastric area. AXR shows pancreatic calcification.

Investigations show elevated ALT of 70 U/L (8-20 U/L) with normal serum amylase.

Which of the following tests would confirm diagnosis?

- ☒ Upper GI endoscopy
- ☐ MRCP
- ☐ Abdominal CT scanning
- ☐ ERCP
- ☐ Secretin stimulation test

Description

This patient has chronic pancreatitis due to gall stones. It is manifested by meals dependent abdominal pain in the left upper abdomen radiating the midback, diarrhea, steatorrhea and weight loss due malabsorption. Pancreatic calcification is pathognomonic for chronic pancreatitis.

Secretin stimulation test is considered the gold standard test for diagnosis of chronic pancreatitis as it confirms exocrine dysfunction of the pancreas.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 141

✓ Correct 29

✗ Incorrect 112

Average Score: 20.57 %

Question 142 of 247

Question Difficulty:

Hard

Mr. X is complaining of upper abdominal pain which radiates to his back, along with nausea and diarrhea for 6 months. He also reports bulky foul-smelling fatty stools associated with mucus. He has a medical history of asymptomatic gall stones.

Examination shows the abdomen is soft and tender on deep palpation in the epigastric area. AXR shows pancreatic calcification.

Investigations show elevated ALT of 70 U/L (8-20 U/L) with normal serum amylase.

Which of the following tests would confirm diagnosis?

- ☒ Upper GI endoscopy
- ☐ MRCP
- ☐ Abdominal CT scanning
- ☐ ERCP
- ☐ Secretin stimulation test

Description

This patient has chronic pancreatitis due to gall stones. It is manifested by meals dependent abdominal pain in the left upper abdomen radiating the midback, diarrhea, steatorrhea and weight loss due malabsorption. Pancreatic calcification is pathognomonic for chronic pancreatitis.

Secretin stimulation test is considered the gold standard test for diagnosis of chronic pancreatitis as it confirms exocrine dysfunction of the pancreas.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 141

✓ Correct 29

✗ Incorrect 112

Average Score: 20.57 %

Question 143 of 247

Question Difficulty:

Hard

Mrs. X was complaining of jaundice. She is in her 3rd trimester of pregnancy. Her viral serology confirms she has acute HCV infection.

What is the management of choice?

- ☒ Peginterferon alfa and ribavirin
- ☐ Lamivudine
- ☐ Follow up
- ☐ Peginterferon alfa
- ☐ Ribavirin

Description

Interferon alpha is the management of choice for pregnant females with HCV infection, ribavirin is teratogenic.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 142

✓ Correct: 29

✗ Incorrect: 113

📊 Average Score: 20.42 %

Question 144 of 247

Question Difficulty:

Hard

Mr. X was complaining of passing dark stool which was investigated to be a melena. Examination reveals severe pallor and cardiac auscultations reveals systolic murmur. Upper GI endoscopy and colonoscopy shows no abnormalities.

What is the investigation would confirm diagnosis?

- ☒ Mesenteric angiography
- ☐ Repeat colonoscopy
- ☐ Barium enema
- ☐ Abdominal CT
- ☐ Repeat upper GI endoscopy

Description

This patient has Angiodysplasia. It is the most common vascular lesion of the gastrointestinal tract, and this condition may be asymptomatic, or it may cause gastrointestinal bleeding. It occurs frequently in association with aortic stenosis (Heyde syndrome).

Selective mesenteric angiography is used for diagnosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 143

✓ Correct 29

✗ Incorrect 114

📊 Average Score: 20.28 %

Question 145 of 247

Question Difficulty:

Hard

Mr. X is complaining of long history of dysphagia for both liquids and solids. His CXR ray reveals a dilated lower esophagus with a fluid level behind the heart. Barium swallow shows gradual narrowing of the distal end of the esophagus

Esophageal manometry was arranged and reveals increased lower esophageal sphincter tone.

What is the management of choice?

- ☒ Pneumatic dilation of lower esophageal sphincter
- ☐ Intra-sphincteric injection of botulinum toxin
- ☐ Nitrate
- ☐ High dose omeprazole
- ☐ Laparoscopic cardiomyotomy of lower esophageal sphincter

Description

This patient is complaining of achalasia. It is manifested by long history of dysphagia of both liquids and solids from the start. It is complicated by regurgitation causing cough, aspiration pneumonia and bronchial asthma.

CXR shows wide mediastinum and fluid level and barium swallow shows dilated esophagus and lower end narrowing (bird's beak deformity).

Laparoscopic cardiomyotomy is the management of choice. Drug therapy (calcium channel blockers, nitrate) and intra-sphincteric injection of botulinum toxin are alternatives in patients who are unfit for surgery. Pneumatic dilation may give temporary relief.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 144

✓ Correct 30

✗ Incorrect 114

📊 Average Score: 20.83 %

Question 146 of 247

Question Difficulty:

Hard

Mr. X is complaining of bloody diarrhea and vomiting for 5 days. He also reports prodrome of fever, headache and myalgia. He spent a week holiday in a farm and he reports he drank unpasteurized milk.

Examination reveals examination he is pyrexial and dehydrated. Abdominal examination shows right iliac fossa pain. Investigations are normal. Stool microscopy shows no trophozoites, spores or parasites.

He was started on IM ceftriaxone 1gm, BID. He show improvement but 2 days later his diarrhea worsen with severe abdominal pain and high grade fever.

What treatment should be started?

- ☒ Continue current treatment
- ☐ Replace with ciprofloxacin
- ☐ Add erythromycin
- ☐ Add clindamycin
- ☐ Stop ceftriaxone

Description

This patient initially has bacterial gastroenteritis and after starting antibiotic he has pseudomembranous colitis. The colitis occurs when this bacteria replaces normal gut flora that has been compromised usually following antibiotic treatment for an unrelated infection.

Antibiotics commonly cause pseudomembranous colitis are clindamycin, cephalosporins, carbapenems and fluoroquinolones. Acid suppression medication augments suppressing normal gut flora.

The management of choice is to stop the causative antibiotic.

CHECK ANSWER

END SESSION

NEXT

Question 147 of 247

Question Difficulty:

Hard

Mr. X is complaining of epigastric pain, dysphagia, odynophagia and occasional vomiting for 3 weeks. Upper endoscopy was done and reveals ulcers throughout the esophagus with intervening normal-appearing mucosa.

Biopsy from ulcer base and culture shows Herpes simplex virus. He was started on acyclovir.

Which of the following management should be added to control his symptoms?

- ☒ Omeprazole 40 mg for 4 weeks
- ☐ Omeprazole 40 mg for 8 weeks
- ☐ Omeprazole 20 mg for 4 weeks
- ☐ Simple antacids
- ☐ Omeprazole 20 mg for 8 weeks

Description

Full-dose PPI for 8 weeks is licensed by NICE 2014 guidelines for symptomatic control of esophagitis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

👤 Answered: 146

✓ Correct: 30

✗ Incorrect: 116

📊 Average Score: 20.55 %

Question 148 of 247

Question Difficulty:

Hard

Mr. X is complaining of retrosternal pain that exaggerated by food or lying flat. He denies any dysphagia, nausea, vomiting or hematemesis. His bowels are regular and there is no history of melena. He is nonsmoker and has no medical history.

Examination reveals his pulse is 70 per minute and regular, heart sounds are normal and his chest is clear. His abdomen is soft and non-tender, with no masses.

ECG, CBC and CXR all are normal.

What is the management of choice?

- ☐ Nifedipine
- ☒ Pantoprazole 40 mg for 4 weeks
- ☐ Ranitidine 300 mg for 8 weeks
- ☐ Surgical fundoplication
- ☐ Pantoprazole 20 mg for 4 weeks

Description

This patient is complaining of GERD. NICE guidelines 2014 suggest empirical full-dose PPI therapy for 4-8 weeks as first line. If symptoms recur after initial treatment, offer a PPI at the lowest dose.

Surgical fundoplication is indicated for patients cannot tolerate acid suppression therapy.

Nifedipine is used to relax lower esophageal sphincter if achalasia was suspected but it may worsen GERD.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 147

✓ Correct: 30

✗ Incorrect: 117

Average Score: 20.41 %

Question 149 of 247

Question Difficulty:

Hard

Mr. X is an IV drug abuser was complaining of right upper quadrant pain and fever. He noticed a yellowish discoloration of his sclera.

Investigations show:

Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	640 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBsAg	negative	
HBV DNA	negative	
Anti-HCV antibodies	positive	
HCV RNA PCR	positive	

What is the management of choice?

- ☐ Tenofovir
- ☒ Entecavir
- ☐ Ribavirin
- ☒ Peginterferon alfa-2b and ribavirin
- ☐ Peginterferon alfa-2a

Description

Anti-HCV indicates previous or current HCV infection but the HCV RNA PCR is positive so there is a current HCV infection. There is no HBV infection as HBsAg and HBV DNA were negative.

A combination of peginterferon interferon alfa 2a or 2b plus ribavirin are the management of choice for HCV; they are effective in clearing the virus in up to 40-80% of cases.

CHECK ANSWER

END SESSION

NEXT

Question 150 of 247

Question Difficulty:

Easy

Mr. X is complaining of worsening indigestion. He also complains of fatigue, weight loss and recent night sweats. He has a long history of GERD.

Examination reveals mild tenderness in the epigastrium. Upper GI endoscopy reveals rigid folds of mucosa in the stomach. Biopsy reveals large numbers of lymphocytes.

What is the most likely diagnosis?

- ☒ MALT lymphoma
- ☐ Gastric adenoma
- ☐ Hodgkin lymphoma
- ☐ Non-Hodgkin lymphoma
- ☐ Gastric carcinoma

Description

MALT lymphoma is a B-cell lymphoma involving the mucosa-associated lymphoid tissue frequently of the stomach. It is mostly a complication of H. pylori infection as in this case due to long history of GERD.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 149

✓ Correct: 31

✗ Incorrect: 118

📈 Average Score: 20.81 %

Question 151 of 247

Question Difficulty:

Hard

Mr. X was complaining of jaundice 3 months after a surgical operation where he received blood transfusion. Investigations revealed

Bilirubin	25 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	780 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

A hepatitis screen was sent to the LAB and the results show:

- HBsAg negative
- Anti-HBc antibodies negative
- Anti-HBs antibodies positive
- HBV DNA negative
- Anti-HCV antibodies positive
- HCV RNA PCR positive

What is the most likely diagnosis?

- ☐ Previous HCV infection and HBV vaccination
- ☒ Chronic HCV infection and previous HBV infection
- ☐ Chronic HCV infection and HBV vaccination
- ☐ Chronic HBV infection and previous HCV infection
- ☐ Chronic HCV and HBV infection

Description

Anti-HCV indicates previous or current HCV infection but the HCV RNA PCR is positive so there is a current HCV infection. Positive anti-HBs antibodies indicate HBV vaccination.

CHECK ANSWER

END SESSION

NEXT

Question 152 of 247

Question Difficulty:

Hard

Mr. X presents with an acute upper gastrointestinal hemorrhage. There is evidence of hepatosplenomegaly. He is severely shocked with a pulse of 105/min and a postural drop of 30 mmHg.

Endoscopy reveals lower esophageal variceal bleeding. Endoscopic variceal ligation was done but bleeding restarted again 2 hours later.

What is the management of choice?

- ☐ Repeat endoscopic variceal ligation
- ☐ Esophageal stent insertion
- ☐ Terlipressin
- ☒ Endoscopic sclerotherapy
- ☐ Transjugular intrahepatic portosystemic shunt

Description

Transjugular intrahepatic portosystemic shunt (TIPS) is indicated for refractory bleeding and to reduce the risk of further variceal bleeds.

Esophageal stent insertion is less used due to low safety and frequent complications.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 151

✓ Correct 32

✗ Incorrect 119

📈 Average Score: 21.19 %

Question 153 of 247

Question Difficulty:

Average

Mr. X was admitted to the ED due to confusion and disorientation. He has a past medical history of alcohol related liver disease. He has been recently commenced on furosemide and spironolactone for recurrent ascites. His wife reports he has complained of increased urinary frequency and dysuria for a week. And she denied any recent head trauma.

Examination reveals an evidence of tense ascites and asterixis. Investigations show:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
Leukocyte count	12 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum creatinine	128 mmol/L	(53-106 mmol/L)
Bilirubin	62 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	129 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
Glucose (random)	15 mmol/l	(< 12 mmol/l)
Glucose (random)	15 mmol/l	(< 12 mmol/l)

What is the most likely cause of his confusion?

☐ Hepatic encephalopathy

☐ UTI

☐ Sepsis

☒ Subdural hematoma

☐ Acute renal failure

Description

Hepatic encephalopathy may be observed in as many as 70% of patients with cirrhosis. Its symptoms range from mild confusion to deep coma.

Precipitating factors include:

- Diuretic therapy
- Hypovolemia
- Renal failure
- GI bleeding
- Infection
- Constipation

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 152

✓ Correct 32

✗ Incorrect 120

Average Score: 21.05 %

Question 154 of 247

Question Difficulty:

Hard

Mr. X is complaining of increasingly severe heartburn and indigestion. His GP offered a trial of ranitidine but it does not reduce his symptoms. He drinks 20 units of alcohol per week and smokes 20 cigarettes per day.

Endoscopy and biopsies reveal areas of columnar metaplasia in the distal esophagus without dysplasia.

What is the management of choice?

- ☐ Endoscopic ablation
- ☒ High-dose PPI and endoscopic surveillance every 2 years
- ☐ High-dose PPI and endoscopic surveillance every 12 months
- ☐ Endoscopic mucosal resection
- ☐ Low-dose PPI and endoscopic surveillance every 2 years

Description

This patient has Barrett esophagus. NICE guidelines 2014 suggest high-dose PPI and endoscopic surveillance with biopsies every 2-3 years for patients with no dysplasia and high-dose PPI for 8-12 weeks and endoscopic surveillance with biopsies every 6 months for patients with low grade dysplasia.

Endoscopic ablation and mucosal resection are used for high grade dysplasia.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 153

✓ Correct 32

✗ Incorrect 121

📊 Average Score: 20.92 %

Question 155 of 247

Question Difficulty:

Hard

Mr. X is complaining of weight loss, unremitting dull abdominal pain radiating to the back and yellowish discoloration of his skin for 2 months. He has no past medical history and he is teetotaler. He denied any dyspepsia or altered bowel habits.

Ultrasound scan reveals bile duct obstruction with suspicion of a mass in the epigastrium. Investigations show:

Bilirubin	44 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	107 U/L	(8-20 U/L)
AST	88 U/L	(8-20 U/L)
Serum creatine kinase	460 U/L	(25-90 U/L)

What is the most likely diagnosis?

- ☐ Pancreatic adenocarcinoma
- ☒ Choledochoduodenal fistula
- ☐ Chronic pancreatitis
- ☐ Gastric cancer
- ☐ Gallstone obstruction

Description

Obstructive jaundice and weight loss are indicative of pancreatic carcinoma. The pain is midepigastric unremitting radiating to the back.

Chronic pancreatitis causes pancreatic calcification, diarrhea and malabsorption.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 154

Correct 33

Incorrect 121

Average Score: 21.43

Question 156 of 247

Question Difficulty:

Hard

On screening Mr. X with a family history of colon cancer by a colonoscopy, it was found he has number of polyps in the descending and sigmoid colon.

Which of the following features of colonic adenomas are least associated with an increased risk of malignant change?

- ☐ Polyps of 1.3 CM
- ☒ More than 10 polyps
- ☐ Flat adenomas
- ☐ Family history of familial adenomatous polyposis
- ☐ Polyps with tubular architecture

Description

Colonic adenomas associated with increased risk of malignant transformation include:

- Sessile or flat adenomas
- Polyps with villous architecture rather than tubular architecture
- Polyps exceeding 1 CM
- Multiple polyps
- Patient has familial adenomatous polyposis
- Patient has hereditary non-polyposis colorectal cancer

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 155

✓ Correct 33

✗ Incorrect 122

Average Score: 21.29 %

Question 156 of 247

Question Difficulty:

Hard

On screening Mr. X with a family history of colon cancer by a colonoscopy, it was found he has number of polyps in the descending and sigmoid colon.

Which of the following features of colonic adenomas are least associated with an increased risk of malignant change?

- ☐ Polyps of 1.3 CM
- ☒ More than 10 polyps
- ☐ Flat adenomas
- ☐ Family history of familial adenomatous polyposis
- ☐ Polyps with tubular architecture

Description

Colonic adenomas associated with increased risk of malignant transformation include:

- Sessile or flat adenomas
- Polyps with villous architecture rather than tubular architecture
- Polyps exceeding 1 CM
- Multiple polyps
- Patient has familial adenomatous polyposis
- Patient has hereditary non-polyposis colorectal cancer

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 155

✓ Correct 33

✗ Incorrect 122

Average Score: 21.29 %

Question 156 of 247

Question Difficulty:

Hard

Mr. X is complaining of diarrhea, abdominal pain and weight loss for 6 weeks. He has a history of RA and is controlled on prednisolone and methotrexate.

The abdomen is soft and non-tender with normal bowel sounds. There is splenomegaly and inguinal lymphadenopathy. Colonoscopy is performed and histological analysis of rectal biopsy shows round intranuclear inclusion bodies within some of the epithelial cells.

What is the most likely diagnosis?

- ☐ Cryptosporidium
- ☒ Cytomegalovirus-associated colitis
- ☐ Lymphocytic colitis
- ☐ Pseudomembranous colitis
- ☐ Metastatic colonic malignancy

Description

Cytomegalovirus (CMV) is a double-stranded DNA virus and is a member of the Herpesviridae family. CMV is the most common virus transmitted through blood transfusion and solid organ transplantation.

CMV colitis is manifested by round intranuclear or intracytoplasmic inclusion bodies within the epithelial cells of the intestinal mucosa

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 155

✓ Correct 33

✗ Incorrect 122

Average Score: 21.29 %

Question 157 of 247

Question Difficulty:

Easy

Mr. X was referred from the ENT specialist complaining of profuse diarrhoea. He was diagnosed earlier this week of having nasal sinusitis where his doctor prescribed levofloxacin.

He was suspected to have moderate pseudomembranous colitis and levofloxacin was stopped. He has a past medical history of metronidazole allergy.

What is the management of choice?

- ☒ Oral neomycin
- ☐ IV sulbactam
- ☒ Oral vancomycin
- ☐ IV clindamycin
- ☐ IV vancomycin

Description

Oral metronidazole for 10-14 days for mild cases is the management of choice, oral vancomycin not IV is alternative.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 156

✓ Correct: 33

✗ Incorrect: 123

📈 Average Score: 21.15 %

Question 158 of 247

Question Difficulty:

Hard

Mr. X is complaining of abdominal pain occurs 10 minutes after meals associated with vomiting, bloating and diarrhea for 2 weeks. He has past medical history of atrial fibrillation.

Abdominal examination reveals a soft abdomen but with widespread tenderness. AXR shows thumb-printing and small bowel obstruction.

Investigations reveal metabolic acidosis and leukocytosis.

What investigation would confirm diagnosis?

- ☐ Upper GI endoscopy
- ☐ Colonoscopy
- ☐ Mesenteric Doppler ultrasound
- ☒ CT Angiography
- ☐ Barium enema

Description

This patient has mesenteric ischemia. It is a medical condition in which inflammation and injury of the small intestine occurs due to inadequate blood supply.

It is frequently associated with an arrhythmia such as atrial fibrillation or arteriopathy as atherosclerosis and ischemic heart diseases.

It is manifested by severe abdominal pain 15-30 min post-meal and the passage of bloody stools. Later shock and metabolic acidosis with dehydration, hypotension, tachycardia and confusion develops.

CT Angiography is the standard for diagnosis with sensitivity of 71-96% and a specificity of 92-94.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 157

Correct 33

Incorrect 124

Average Score: 21.02

Question 159 of 247

Question Difficulty:

Hard

Mr. X with a past history of type 2 diabetes controlled on insulin was accidentally discovered to have enlarged liver on regular check-up. All investigations were normal except an ALT level of ALT 25 U/L. Abdominal ultrasound reveals evidence of liver steatosis.

What is the management of choice?

- ☐ Add Statin to insulin
- ☐ Increase insulin dose
- ☒ Add metformin to insulin
- ☐ Stop insulin and start metformin
- ☐ Add Omega-3 fatty acids to insulin

Description

This patient is complaining of Nonalcoholic fatty liver disease (NAFLD). The mainstay of treatment is lifestyle changes (particularly weight loss). Insulin sensitizers as metformin could be added to insulin to promote weight loss.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

 Answered 158

✓ Correct 33

✗ Incorrect 125

 Average Score: 20.89 %

Question 160 of 247

Question Difficulty:

Hard

Mr. X with a chronic liver disease secondary to alcohol and hepatitis C infection presents with decompensated liver disease with increasing ascites. He has no cirrhosis.

Abdominal ultrasound shows an irregular lesion within the liver. CT scan shows 2.5x3 CM irregular lesion in the liver with no lymphatic infiltration. Liver biopsy confirms a hepatocellular carcinoma.

What is the management of choice?

- ☐ Liver transplantation
- ☒ Percutaneous ethanol injection
- ☐ Systemic chemotherapy
- ☒ Surgical resection
- ☐ Radiofrequency ablation

Description

Surgical resection is considered as a primary therapy in any patient with non-cirrhotic non-metastatic HCC (< 3 nodules all < 3cm). Liver transplantation is considered in any patient with cirrhosis with non-metastatic tumor

People who are not fit for surgery can be managed by percutaneous ethanol injection, radiofrequency ablation for smaller nodules and chemoembolization for larger nodules.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 159

✓ Correct 34

✗ Incorrect 125

📊 Average Score: 21.38 %

Question 161 of 247

Question Difficulty:

Hard

Mr. X is complaining of a long history of heartburn. An endoscopy is ordered to investigate his symptoms. A biopsy is taken from an abnormal area of mucosa in the lower esophagus which revealed low dysplastic columnar-lined esophagus.

He was prescribed high-dose PPI for 12 weeks and endoscopic surveillance with biopsies was done 6 month later which showed non-dysplastic lesion.

What is the most suitable management?

- ☒ Endoscopic surveillance with biopsies every 3 years
- ☐ Endoscopic surveillance with biopsies every 1 year
- ☐ No further surveillance is needed
- ☐ Endoscopic surveillance with biopsies every 6 month
- ☐ Refer for mucosal resection

Description

NICE guidelines 2014 suggest high-dose PPI for 8-12 weeks and endoscopic surveillance with biopsies every 6 month for patients with low grade dysplasia, if improvement occurs continue high-dose PPI and endoscopic surveillance with biopsies every 2-3 years.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 160

✓ Correct 34

✗ Incorrect 126

✓ Average Score: 21.25 %

Question 162 of 247

Question Difficulty:

Hard

12 years old boy is complaining of mild diarrhoea. He had recently returned from holiday where he had been swimming in the hotel pool. His 14 years old sister also complains of GI upset and nausea.

Examination reveals they are well with no abdominal tenderness or fever. Stool smear is free.

What is the management of choice?

- ☒ Doxycycline
- ☐ Metronidazole
- ☐ Co-trimoxazole
- ☐ Albendazole
- ☐ Supportive management

Description

Cryptosporidium is a protozoan that can cause respiratory and gastrointestinal diseases. It is presented by prolonged and severe watery diarrhea with or without a persistent cough in immunodeficient patients.

It also causes self-limited diarrheal illness in immunocompetent patient, mostly children. Outbreaks have been associated with water supplies and public swimming pools.

Nitazoxanide is the management of choice of Cryptosporidium, supportive management is also indicated.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 161

✓ Correct 35

✗ Incorrect 126

Average Score: 21.74 %

Question 163 of 247

Question Difficulty:

Average

Mrs. X woman with a history of depression presents to the Emergency Department as she reports taking 50 paracetamol tablets 40 minutes ago for committing suicide and she regrets about that.

What is the management of choice?

- ☐ Activated charcoal
- ☒ Inpatient admission and follow up
- ☐ Gastric lavage
- ☐ Discharge home
- ☐ N-acetylcysteine

Description

The management of choice of paracetamol toxicity within 1 hour of ingestion is gastrointestinal decontamination. Gastric lavage is used within 1 hour post ingestion. Activated charcoal is less invasive and has fewer side effects than gastric lavage. It is used within 30 minutes - 2 hour post ingestion

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 162

✓ Correct 35

✗ Incorrect 127

Average Score: 21.6 %

Question 164 of 247

Question Difficulty:

Average

Mr. X is complaining of severe anemia. He has a family history of death of GI cancers.

Fecal examination reveals blood in stool. Colonoscopy reveals an irregular mass in the sigmoid colon. Biopsy reveals a cancer invading through the colon wall penetrating the muscle layer. Abdominal CT shows ipsilateral 2 groups of abdominal lymph node involvement.

What is the management of choice?

- ☐ Radiotherapy of the cancer and lymph nodes
- ☐ Chemotherapy
- ☒ Surgical resection of the cancer and radiotherapy of the lymph nodes
- ☐ Surgical resection of the cancer and lymph nodes
- ☐ Combined chemo and radiotherapy

Description

This patient has stage III of Dukes staging of colorectal cancer. Surgery is the only curative modality for localized colorectal cancer in Dukes' stage I-III. Lymph nodes can be surgically removed as well.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 163

✓ Correct 35

✗ Incorrect 128

📈 Average Score: 21.47 %

Question 165 of 247

Question Difficulty:

Average

Mr. X was complaining of pain in the right upper quadrant and fever. Abdominal ultrasound reveals a bile duct stone and several gallstones in the gallbladder. Investigation show:

Bilirubin	88 µmol/L	(2-17 µmol/L)
ALT	80 U/L	(8-20 U/L)
Serum creatine kinase	790 U/L	(25-90 U/L)

What is the management of choice?

- ☐ Open cholecystectomy
- ☐ Lithotripsy
- ☒ Laparotomy and stone extraction
- ☐ Endoscopic bile duct stone extraction
- ☐ Laparoscopic cholecystectomy

Description

- ☐ Open cholecystectomy
- ☐ Lithotripsy
- ☒ Laparotomy and stone extraction
- ☐ Endoscopic bile duct stone extraction
- ☐ Laparoscopic cholecystectomy

Description

This patient has ascending cholangitis caused by bile duct stone. It is characterized by Charcot triad of symptoms consists of fever, right upper quadrant pain and jaundice.

Emergency decompression of the biliary tree by endoscopic bile duct stone extraction is the management of choice.

CHECK ANSWER

END SESSION

NEXT

Question 166 of 247

Question Difficulty:

Hard

Mr. X is complaining of epigastric pain for 6 months and diarrhoea for 2 years. His GP prescribed omeprazole 20 mg daily but it did not improve his symptoms. He has no past medical history except recurrent renal stones.

Examination shows his abdomen is very firm, with tenderness in the epigastrium. His bowel movement is normal. Stool examination reveals melena. Endoscopy revealed multiple duodenal ulcerations.

Serum electrolytes show:

Serum sodium	140 mmol/L	(136-145 mmol/L)
Serum potassium	3.6 mmol/L	(3.5-5.0 mmol/L)
Serum chloride	90 mmol/L	(95-105 mmol/L)
Serum calcium	3.2 mmol/L	(2.1-2.8 mmol/L)

What is the most likely diagnosis?

- ☐ Crohn disease
- ☒ Multiple endocrine neoplasia type I
- ☐ Multiple endocrine neoplasia type II a
- ☐ Coeliac disease
- ☒ Chronic bacterial over growth

Description

Multiple endocrine neoplasia type I as he has Zollinger-Ellison syndrome and hyperparathyroidism. Zollinger-Ellison syndrome typically presents with multiple gastroduodenal ulcers causing abdominal pain and diarrhoea.

CHECK ANSWER

END SESSION

NEXT

Question 167 of 247

Question Difficulty:

Easy

Mr. X is complaining of fatigue, weight loss and rectal bleeding for 4 weeks. He has a family history of GI cancers. Colonoscopy reveals many polyps and a fungating mass. Biopsy confirms a colorectal cancer.

What is the most likely diagnosis?

- ☒ Hereditary non-polyposis colon cancer
- ☐ Sporadic cancer
- ☐ Peutz-Jeghers syndrome
- ☐ Familial adenomatous polyposis
- ☐ Metastatic

Description

Familial adenomatous polyposis (FAP) is an autosomal dominant condition characterized by the presence of hundreds of adenomatous polyps throughout the colon, individuals carry 100% risk of developing colorectal cancer by age 40 years, and it causes less than 1% of all colorectal cancer cases.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 166

✓ Correct 35

✗ Incorrect 131

📈 Average Score: 21.08 %

Question 168 of 247

Question Difficulty:

Easy

3 years old boy presents with 12 months history of constipation and abdominal distension. AXR reveals distended bowel loops. A barium enema shows a transition zone at the recto-sigmoid junction with reversal of the recto-sigmoid ratio.

What is the most likely diagnosis?

- ☐ Anal atresia
- ☐ Megarectum
- ☐ Idiopathic slow transit
- ☒ Hirschsprung disease
- ☐ Malrotation of the gut

Description

Hirschsprung disease is a developmental disorder characterized by absence of ganglia in the distal colon, resulting in a functional obstruction.

Hirschsprung disease is diagnosed shortly after birth as the baby fails to pass the meconium within 48 hours. Some cases are diagnosed into childhood; they experience fecal retention, constipation, or abdominal distention.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 167

✓ Correct 35

✗ Incorrect 132

📈 Average Score: 20.96 %

Question 169 of 247

Question Difficulty:

Average

Mr. X was referred for altered consciousness level. He was complaining of weight loss and pain in the right upper abdomen and swelling of the abdomen for 2 weeks. He has a long history of liver cirrhosis due to chronic HBV infection.

Examination reveals he is deeply jaundiced enlarged, tender and tense ascites. Abdominal ultrasound shows an irregular lesion within the liver. Investigations show:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
Mean corpuscular volume	107 fl	80-100 fl
Leukocyte count	$6 \times 10^9 / L$	$(4.0-11.0 \times 10^9 / L)$
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	131 mmol/L	(53-106 mmol/L)
Bilirubin	66 μ mol/L	(2-17 μ mol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	132 mmol/L	(136-145 mmol/L)
Serum potassium	6 mmol/L	(3.5-5.0 mmol/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	132 mmol/L	(136-145 mmol/L)
Serum potassium	6 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)

Which of the following investigations would confirm diagnosis?

☐ Asiatic fluid analysis

☐ CT scanning

☐ Alpha-fetoprotein

☐ Liver biopsy

☒ HBV DNA

Description

This patient has hepatocellular carcinoma. It is a primary malignancy of the liver and occurs predominantly in patients with underlying chronic liver disease and cirrhosis.

Hepatocellular carcinoma presents with rapid deterioration of chronic liver disease with weight loss, right upper quadrant abdominal pain, nausea and vomiting.

Alpha-fetoprotein is used for screening. Definite diagnosis is made by liver biopsy. CT scanning is used of choice for staging.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 168

✓ Correct: 36

✗ Incorrect: 132

Average Score: 21.43

%

Question 170 of 247

Question Difficulty:

Hard

Mr. X is complaining of 1 month of uncontrolled previously controlled bronchial asthma. He denied any recent smoking, viral illness or incomppliance to his salbutamol inhalation.

He reports retrosternal pain that exaggerated by food or lying flat. He denies any vomiting, dysphagia or weight loss.

Which one of the following investigations is f choice for the diagnosis?

- ☒ 24hr esophageal pH monitoring
- ☐ Upper GIT endoscopy
- ☐ Esophageal manometry
- ☐ Peptest
- ☐ Barium swallow

Description

This patient is complaining of GERD. 24-hr esophageal pH monitoring is the gold standard test for diagnosis. Peptest (salivary pepsin) is simple and non-invasive but sensitivity is 30% only. Upper GIT endoscopy is indicated if there are any alarm signs.

Esophageal manometry and barium swallow are indicated if there is dysphagia as achalasia would be suspected.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 169

✓ Correct: 36

✗ Incorrect: 133

Average Score: 21.3 %

Question 171 of 247

Question Difficulty:

Hard

17-year-old girl attends the Emergency Department with her parents as she had ingested 40x500 mg paracetamol tablets around 24 hours ago.

All of the following markers are indicator of prognosis in paracetamol toxicity except?

- ☐ Creatinine 280 $\mu\text{mol/l}$
- ☒ Arterial pH 7.25
- ☐ Prothrombin time 22 seconds
- ☐ Grade III hepatic encephalopathy
- ☐ Grade IV hepatic encephalopathy

Description

Poor prognostic factors of paracetamol toxicity

- Prothrombin time > 100 seconds (most indicator)
- Metabolic acidosis (Arterial pH < 7.3)
- Creatinine > 300 $\mu\text{mol/l}$
- Grade III or IV hepatic encephalopathy

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 170

✓ Correct 37

✗ Incorrect 133

📊 Average Score: 21.76 %

Question 172 of 247

Question Difficulty:

Hard

Mr. X is complaining of severe bloody diarrhea with severe abdominal pain and high grade fever. He has no past medical history except he recently had a successful varicectomy 2 weeks ago.

Examination shows he is pyrexial 38 C, his abdomen is soft but the lower portion is generally tender. Stool examination shows no cysts or ova.

What is the most likely causative organism of his diarrhea?

- ☐ Escherichia coli
- ☒ Clostridium difficile
- ☐ E. Histolytica
- ☐ Salmonella
- ☐ Anaerobic infection

Description

This patient has pseudomembranous colitis. Pseudomembranous colitis is inflammation of the large intestine resulting from infection with Clostridium difficile. It occurs when this bacteria replaces normal gut flora that has been compromised usually following antibiotic treatment for an unrelated infection.

Antibiotics commonly cause pseudomembranous colitis are clindamycin, cephalosporins, carbapenems and fluoroquinolones. Acid suppression medication augments suppressing normal gut flora.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 171

✓ Correct 37

✗ Incorrect 134

✓ Average Score: 21.64 %

Question 173 of 247

Question Difficulty:

Hard

Mr. X was referred from the ENT specialist complaining of profuse diarrhoea. He was diagnosed earlier this week of having nasal sinusitis where his doctor prescribed levofloxacin.

Abdominal examination left lower quadrant tenderness. Investigations reveal elevated WBC, ESR, CRP and serum creatinine.

What is the investigation of choice for diagnosis?

- ☒ Sigmoidoscopy and biopsy
- ☐ Blood culture
- ☐ Stool culture
- ☒ Upper GI endoscopy and biopsy
- ☐ Stool testing for bacterial toxin

Description

This patient has pseudomembranous colitis. Pseudomembranous colitis is inflammation of the large intestine resulting from infection with *Clostridium difficile*. It occurs when this bacteria replaces normal gut flora that has been compromised usually following antibiotic treatment for an unrelated infection.

Sigmoidoscopy is of choice as it shows pseudomembranes on the mucosa of the colon or rectum and obtaining biopsy.

Stool or biopsy culture for toxin production is the gold standard for diagnosis but it is less used due to slow results. Stool testing for the presence of *C. difficile* toxins is alternative for culture.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 172

✓ Correct 38

✗ Incorrect 134

Average Score: 22.09 %

Question 174 of 247

Question Difficulty:

Hard

Mrs. X is suffering from intractable itching for 3 weeks. She was diagnosed with Hashimoto disease 5 years ago. Abdominal examination shows the liver was non-tender and the edge is palpable 3 cm below the costal margin.

Investigations reveal ALT 88 U/L (8-20 U/L) and serum creatine kinase 560 U/L (25-90 U/L). AMA was positive.

What is the management of choice?

- ☐ Referral for liver transplantation
- ☒ Ursodeoxycholic acid
- ☐ Prednisolone
- ☐ Methotrexate
- ☐ Azathioprine

Description

This patient has primary biliary cirrhosis (PBC). It is associated with other autoimmune diseases. It is manifested by cholestatic picture (significant elevations of the alkaline phosphatase with mild elevation of aminotransferases). Antimitochondrial antibody (AMA) is diagnostic; it positive is in 98% of cases.

Ursodeoxycholic acid is the management of choice; it is used to slow the progression of the disease. Corticosteroids and methotrexate may produce improvement in biochemical and histologic findings.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 173

✓ Correct 38

✗ Incorrect 135

Average Score: 21.97%

Question 175 of 247

Question Difficulty:

Average

Mr. X is admitted to the emergency department with a massive fresh hematemesis and melena. He has a history of liver cirrhosis with portal hypertension and bled from esophageal varices 6 months ago, for which he underwent sclerotherapy and banding and made a good recovery. Examination reveals he was shocked and semi-conscious with a pulse of 130/min and a blood pressure of 80/40 mmHg. Resuscitation was started by terlipressin, fluids and fresh frozen plasma.

What is the management of choice?

- ☐ Watchful waiting
- ☒ Endoscopic variceal ligation
- ☐ Transjugular intrahepatic portosystemic shunt
- ☐ Endoscopic sclerotherapy
- ☐ Sengstaken-Blakemore tubes

Description

Therapeutic endoscopy is considered the mainstay of urgent treatment. Endoscopic variceal ligation is superior to endoscopic sclerotherapy. Minnesota or Sengstaken-Blakemore tubes are indicated for uncontrolled or recurrent hemorrhage. Transjugular intrahepatic portosystemic shunt (TIPS) is indicated for refractory bleeding and to reduce the risk of further bleeds.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 174

✓ Correct 38

✗ Incorrect 136

📈 Average Score: 21.84 %

Question 176 of 247

Question Difficulty:

Hard

Mr. X with a history of liver cirrhosis was just drained for an ascites. He had 3 previous episodes of tense ascites.

What is the management of choice for prevention of accumulation?

- ☐ Furosemide
- ☐ High fluid intake
- ☒ Spironolactone
- ☐ Hydrochlorothiazide
- ☐ Shunting operation

Description

Prophylaxis of reaccumulation of ascites is done by salt restriction and aldosterone antagonist diuretics.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 175

✓ Correct: 39

✗ Incorrect: 136

📊 Average Score: 22.29 %

Question 177 of 247

Question Difficulty:

Average

Mr. X with a past history of alcoholic cirrhosis presents with progressive exertional dyspnea for 3 months.

Examination reveals normal blood pressure and high JVP is elevated at 5 cm and marked pitting edema. Abdominal examination reveals a tense ascites. CXR shows bilateral pleural effusions. Investigations show:

Bilirubin	44 μ mol/L	(2-17 μ mol/L)
ALT	69 U/L	(8-20 U/L)
Serum creatinine	160 mmol/L	(53-106 mmol/L)
Serum sodium	128 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
Urinalysis	Negative	

What is the most likely diagnosis?

- ☐ Acute tubular necrosis
- ☐ Nephrotoxic drugs
- ☐ Septicemia
- ☒ Hepatorenal syndrome
- ☐ Membranous glomerulonephritis

Description

Hepatorenal syndrome (HRS) is the development of renal failure in patients with advanced chronic liver disease due to renal vasoconstriction.

Hepatorenal syndrome is usually a diagnosis of exclusion of other causes of renal failure.

CHECK ANSWER

END SESSION

NEXT

Question 178 of 247

Question Difficulty:

Hard

Mr. X is complaining of sudden onset hematemesis for 4 hours duration. He has no past history except chronic use of diclofenac for chronic headache. He is teetotaler and smokes 20 cigarettes per day.

Upper GI endoscopy was performed and reveals a bleeding ulcer in the fundus of the stomach.

What is the management of choice?

- ☐ Fluids and octreotide
- ☒ Endoscopy and ligation of short gastric artery
- ☐ Endoscopy and ligation of right gastro-omental artery
- ☐ IV pantoprazole
- ☐ Fluids and terlipressin

Description

NICE Guidelines 2012 recommend endoscopic therapy for bleeding peptic ulcers is the management of choice. The fundus of the stomach is supplied by the short gastric artery (branch of the splenic artery) and it must be ligated to stop bleeding. Right gastro-omental artery supplies the lower part of greater curvature.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 177

✓ Correct: 41

✗ Incorrect: 136

📊 Average Score: 23.16 %

Question 179 of 247

Question Difficulty:

Hard

On screening screen a patient for hepatitis B infection, lab findings show:

- HBsAg positive
- HBeAg positive
- IgG anti-HBc positive
- IgM anti-HBc negative
- HBV DNA positive
- IgM anti-delta negative

What is the most likely diagnosis?

- ☒ Chronic active hepatitis B disease
- ☐ Hepatitis B carrier
- ☒ Acute hepatitis B disease
- ☐ Hepatitis D co infection
- ☐ Previous HBV immunization

Description

- ☒ Chronic active hepatitis B disease
- ☐ Hepatitis B carrier
- ☒ Acute hepatitis B disease
- ☐ Hepatitis D co infection
- ☐ Previous HBV immunization

Description

Chronic hepatitis B disease is manifested by positive HBsAg, HBeAg, IgG anti-HBc, IgM and HBV DNA.

CHECK ANSWER

END SESSION

NEXT

Question 180 of 247

Question Difficulty:

Hard

Mr. X with a past history of chronic liver disease was found unconscious in the ward 2 days after he was admitted for management of septicemia.

Examination reveals normal blood pressure and high JVP is elevated at 5 cm and marked pitting edema. Abdominal examination reveals a tense ascites. CXR shows bilateral pleural effusions.

Investigations show serum creatinine of 180 mmol/L (53-106 mmol/L) and urinalysis is negative.

What is the management of choice for his worsening renal function?

- ☒ IV albumin and fluids administration
- ☐ Neomycin
- ☐ Central venous pressure monitoring
- ☐ IV dopamine infusion
- ☐ Regular lactulose use

Description

Hepatorenal syndrome (HRS) is the development of renal failure in patients with advanced chronic liver disease due to renal vasoconstriction.

Hepatorenal syndrome is usually a diagnosis of exclusion of other causes of renal failure.

The definitive treatment for hepatorenal syndrome is liver transplantation but emergency medical therapy involves volume expansion of the plasma with intravenous albumin and fluids.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 179

✓ Correct 42

✗ Incorrect 137

Average Score: 23.46 %

Question 181 of 247

Question Difficulty:

Average

A lab worker was referred for HBV vaccination program. He was given 3 doses of HBsAg. 3 months later his Anti-HBs level was 8. What should be done regarding his vaccination?

- ☐ Follow up
- ☒ Repeat full vaccine course
- ☐ Additional 1 vaccine dose should be given
- ☐ He is fully vaccinated
- ☐ Additional 2 vaccine dose should be given

Description

At risk groups (healthcare workers) should be vaccinated with 3 doses of the vaccine. Anti-HBs levels should be checked 1-4 months after primary immunization.

Interpretation of post immunization anti-HBs levels:

- > 100 indicates adequate response
- $10 - 100$ indicates suboptimal response; one additional vaccine dose should be given
- < 10 indicates non-responder; give full vaccine course (i.e. 3 doses)

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 180

✓ Correct: 43

✗ Incorrect: 137

📊 Average Score: 23.89 %

Question 182 of 247

Question Difficulty:

Hard

Mrs. X who is in her first trimester of pregnancy is suffering from abdominal pain and bloody diarrhoea for 3 weeks. She has past medical history of Crohn disease. Investigations reveal:

Hemoglobin	8 g/dL	(12.0-16.0 g/dL)
Leukocyte count	14 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	1.9 mmol/L	(2.1-2.8 mmol/L)
ESR	66	(10-20 1st hour)

What is the management of choice?

- ☒ Elemental diet and prednisolone
- ☐ Total parenteral nutrition and mesalazine
- ☐ Azathioprine
- ☐ Infliximab
- ☒ Methotrexate

Description

Pregnant females with flare up Crohn disease are managed by elemental diet and corticosteroids.

CHECK ANSWER

END SESSION

NEXT

Question 183 of 247

Question Difficulty:

Hard

Mr. X is complaining of abdominal pain, abdominal swelling and weight loss. Abdominal examination reveals large amount of ascites. Investigations show:

Hemoglobin	12 g/dL	(13.5-17.5 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Platelets	210 /cmm ³	(150-450 million/mm ³)
Serum creatinine	107 mmol/L	(53-106 mmol/L)
Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Ascitic fluid SAAG	15 g/L	(11 g/L)

What is the most likely diagnosis?

What is the most likely diagnosis?

- ☐ Budd-Chiari syndrome
- ☒ Tuberculous peritonitis
- ☐ Constrictive pericarditis
- ☐ Pancreatic ascites
- ☐ Peritoneal carcinomatosis

Description

This patient has transudative ascites due to high serum-ascites albumin gradient (SAAG) (> 11g/L). Budd-Chiari syndrome and constrictive pericarditis are the only listed diseases to cause transudative ascites. Due to his symptoms and his liver failure Budd-Chiari syndrome is the diagnosis.

CHECK ANSWER

END SESSION

NEXT

Question 184 of 247

Question Difficulty:

Average

Mrs. X was complaining of jaundice. She is in her 3rd trimester of pregnancy. Her viral serology confirms she has acute HCV infection.

Which of the following management should be offered for her newborn?

- ☒ Follow up
- ☐ Ribavirin
- ☒ Peginterferon alfa
- ☐ Peginterferon alfa and ribavirin
- ☐ HCV vaccine

Description

5% of newborns to HCV infected women become infected. This occurs at the time of birth and there is no way of preventing this. There is no vaccine for HCV children less than 1 year.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 183

✓ Correct 44

✗ Incorrect 139

📊 Average Score: 24.04 %

Question 185 of 247

Question Difficulty:

Hard

Mr. X was found to have a blood in stool in regular follow. He was suspected to have a colonic carcinoma. All the followings are indications for referral for colonoscopy except?

- ☐ 65 years old patient with rectal bleeding persisting for 6 weeks or more
- ☒ 70 years old patient with changes in bowel habit persisting for 6 weeks or more
- ☐ 40 years old patient with a palpable rectal mass
- ☒ 30 years old patient with rectal bleeding and changes of bowel habit persisting for 6 weeks or more
- ☐ 30 years old patient with a right lower abdominal mass

Description

Referral guidelines for flexible sigmoidoscopy, and colonoscopy:

- Patients > 40 years old, reporting rectal bleeding with a change of bowel habit towards looser stools and/or increased stool frequency persisting for 6 weeks or more
- Patients > 60 years old, with rectal bleeding persisting for 6 weeks or more without a change in bowel habit and without anal symptoms
- Patients > 60 years old, with a change in bowel habit to looser stools and/or more frequent stools persisting for 6 weeks or more without rectal bleeding
- Patient presenting with a right lower abdominal mass consistent with involvement of the large bowel
- Patient with a palpable rectal mass
- Unexplained iron deficiency anaemia in men or non-menstruating women

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 184

✓ Correct 44

✗ Incorrect 140

📊 Average Score: 23.91

Question 186 of 247

Question Difficulty:

Hard

Mr. X was admitted due to fever, jaundice and right upper abdominal pain. Investigations show:

- Hepatitis B surface antigen (HBsAg) positive
- Hepatitis B e antigen (HBeAg) positive
- IgM anti-HBc positive
- IgG anti-HBc negative
- HBV DNA positive

What is the most likely diagnosis?

- ☐ Chronic active hepatitis B disease
- ☐ Acute hepatitis B disease
- ☒ HBeAg-negative chronic hepatitis B
- ☐ Hepatitis B carrier
- ☐ Previous HBV immunization

Description

Acute hepatitis B disease is manifested by positive HBsAg, HBeAg, IgM anti-HBc and HBV DNA.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 185

✓ Correct 44

✗ Incorrect 141

📊 Average Score: 23.78 %

Question 187 of 247

Question Difficulty:

Hard

Mr. X was admitted to the ED due to hematemesis. He was a party where he drank a large volume of beer and then proceeded to vomit copiously. After vomiting and retching for the third time he began to have hematemesis and the vomiting was stopped after that.

Examination at admission shows he is well with no vomiting and BP and heart rate all are normal. Endoscopy was normal.

Which of the management of choice?

- ☐ IV octreotide
- ☐ IV PPI
- ☐ Oral PPI
- ☒ Discharge the patient and reassure
- ☐ IV terlipressin

Description

This patient is complaining of Mallory-Weiss tear. It is upper gastrointestinal bleeding secondary to longitudinal mucosal lacerations due to transient transmural pressure gradient across the region of the gastroesophageal junction. It account for an estimated 1-15% of cases of upper gastrointestinal bleeding.

Management is usually supportive.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 186

✓ Correct 44

✗ Incorrect 142

📊 Average Score: 23.66 %



Question 188 of 247

Question Difficulty:

Hard

Mr. X is complaining of progressive itching and increased thirsty for 2 months. He also reports he has erection problems for 3 months.

Examination reveals he has gynecomastia and deeply tanned skin. Abdominal examination shows hepatomegaly. Investigations show:

Hemoglobin	12 g/dL	(13.5-17.5 g/dL)
Leukocyte count	$6 \times 10^9 /L$	(4.0-11.0 $\times 10^9 /L$)
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	107 mmol/L	(53-106 mmol/L)
Bilirubin	25 μ mol/L	(2-17 μ mol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
Glucose (random)	15 mmol/l	(< 12 mmol/l)
Bilirubin	25 μ mol/L	(2-17 μ mol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	2.3 mmol/L	(2.1-2.8 mmol/L)
Glucose (random)	15 mmol/l	(< 12 mmol/l)

What is the most likely diagnosis?

- ☐ Primary biliary cirrhosis
- ☐ Alcoholic cirrhosis
- ☒ Wilson disease
- ☐ Hepatitis B
- ☐ Hemochromatosis

Description

Hemochromatosis is the abnormal accumulation of iron in parenchymal organs leading to organ toxicity. It is manifested by:

- Hepatomegaly and cirrhosis
- Skin hyperpigmentation, hair loss and koilonychia
- Diabetes mellitus due to iron deposition within the pancreas
- Arthropathy
- Amenorrhea, impotence and hypogonadism due to iron deposition within the pituitary
- Cardiomyopathy

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 187

✓ Correct: 45

✗ Incorrect: 142

Average Score: 24.06 %

Question 189 of 247

Question Difficulty:

Hard

Mr. X is complaining of rectal bleeding. Colonoscopy reveals an irregular mass in the rectum. Biopsy reveals a cancer . He was managed with surgical resection.

2 Years later he has recurrence of rectal bleeding associated with weight loss.

What is the suitable investigation for assessment of recurrence of rectal cancer?

- ☐ ESR
- ☒ Fecal occult blood testing
- ☐ Abdominal CT
- ☐ Proctoscopy
- ☐ Serum carcinoembryonic antigen

Description

Elevated serum carcinoembryonic antigen, it is used to monitor for recurrence in patients post-operatively or to assess response to treatment in patients with metastatic disease.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 188

✓ Correct 45

✗ Incorrect 143

📈 Average Score: 23.94 %

Question 190 of 247

Question Difficulty:

Hard

Mr. X was complaining of jaundice after a needle stick. He was suspected the needle stick was from a hepatitis B patient. His investigations show:

Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	780 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

Which of the following test results if present would best confirm this diagnosis?

- ☐ HBeAg
- ☐ HBV DNA
- ☒ IgM anti-HBc
- ☒ HBsAg
- ☐ Anti-HBeAg

Description

- ☐ HBeAg
- ☐ HBV DNA
- ☒ IgM anti-HBc
- ☒ HBsAg
- ☐ Anti-HBeAg

Description

Positive HBsAg would indicate the patient has infection or a carrier. IgM anti-HBc is the best indicator for acute HBV infection.

CHECK ANSWER

END SESSION

NEXT

Question 191 of 247

Question Difficulty:

Easy

16 years old girl is complaining of weight loss over the past year due to chronic diarrhoea. She has a history of primary amenorrhoea and selective IgA deficiency.

She underwent a duodenal biopsy which shows a villous atrophy. Celiac disease was suspected.

Which of the following investigations would confirm diagnosis?

- ☐ IgA endomysial antibodies
- ☒ IgM deamidated gliadin peptide
- ☐ IgG tissue transglutaminase
- ☐ IgA deamidated gliadin peptide
- ☐ IgA tissue transglutaminase

Description

Diagnosis of celiac disease according to NICE Guidelines 2015

Serologic tests are diagnostic for celiac disease:

- IgA tissue transglutaminase (tTG) as the first choice is diagnostic
- IgA endomysial antibodies (EMA) is alternative if IgA tTG is weakly positive
- IgG EMA, IgG deamidated gliadin peptide (DGP) or IgG tTG are alternatives if IgA is deficient

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 190

✓ Correct: 45

✗ Incorrect: 145

📈 Average Score: 23.68 %

Question 192 of 247

Question Difficulty:

Hard

Mr. X is suffering from diarrhea, dyspnea and weight loss of approximately six months duration.

Examination reveals blood pressure of 122/76 mmHg. His jugular venous pressure is elevated approximately 4 cm above the sternal angle and auscultation of the heart reveals a soft pan-systolic murmur at the left sternal edge. Investigations show:

Hemoglobin	15 g/dL	(Male: 13.5-17.5 g/dL)
Leukocyte count	10.6 X 10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 million/mm ³	(150-450 million/mm ³)
Serum creatinine	102 mmol/L	(53-106 mmol/L)
Bilirubin	14 µmol/L	(2-17 µmol/L)
ALT	150 U/L	(8-20 U/L)
24 hour urine HIAA	750 µmol/l	<70 µmol/l

What is the most likely diagnosis?

- ☒ Carcinoma of the pancreas with liver metastasis
- ☐ Intestinal tuberculosis
- ☐ Tropical sprue
- ☐ Lymphoma
- ☐ Carcinoid syndrome

Description

Malignant carcinoid syndrome is the constellation of symptoms typically exhibited by patients with metastases from carcinoid tumors which cause excessive levels of serotonin.

It is manifested by flushing of the face, severe diarrhea, asthma attacks and hypotension. Tricuspid regurgitation and pulmonary stenosis are less common. Liver metastasis and cirrhosis are common.

Elevated 24-hour urinary 5- hydroxyindoleacetic acid (HIAA) is diagnostic.

CHECK ANSWER

END SESSION

NEXT

Question 193 of 247

Question Difficulty:

Hard

Mr. X is complaining of severe epigastric pain radiating to the back, nausea, vomiting and fever. He opens his bowels 6 times per day with loose stools and mucus.

Investigations reveal WBC count of $14 \times 10^9/L$, serum amylase of $1250 U/L$, abdominal CT shows acute pancreatitis. He was started IV fluids, analgesia and antibiotics which showed improvement of his investigations.

2 weeks later the pain returned and was more severe with central abdominal mass. Investigations reveal WBC count of $20 \times 10^9/L$, serum amylase of $100 U/L$.

What is the most likely diagnosis?

- ☒ Pancreatic abscess
- ☐ Pancreatic pseudocyst
- ☐ Gall stone
- ☐ Recurrent acute pancreatitis
- ☐ Chronic pancreatitis

Description

Pancreatic pseudocyst is localized fluid collection that is rich in amylase and other pancreatic enzymes that usually appear several weeks after the onset of acute pancreatitis.

It is presented by persistent abdominal pain, anorexia, or abdominal mass after acute pancreatitis

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 192

✓ Correct 45

✗ Incorrect 147

Average Score: 23.44 %

Question 194 of 247

Question Difficulty:

Hard

Mr. X is complaining of weight loss, anorexia, pain in the right upper abdomen and swelling of the abdomen for 2 months. He has a long history of liver cirrhosis due to chronic HBV infection.

Examination reveals enlarged, tender and tense ascites. Abdominal ultrasound shows a focal lesion within the liver. Stool examination reveals Entamoeba cysts. Investigations show:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
Mean corpuscular volume	107 fl	80-100 fl
Leukocyte count	$6 \times 10^9 / L$	$(4.0-11.0 \times 10^9 / L)$
Platelets	210 k/mm ³	(150-450 million/mm ³)
Serum creatinine	131 mmol/L	(53-106 mmol/L)
Bilirubin	66 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBsAg positive	positive	
Serum creatinine	131 mmol/L	(53-106 mmol/L)
Bilirubin	66 µmol/L	(2-17 µmol/L)
ALT	88 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBsAg positive	positive	
IgG anti-HBc	positive	
HBV DNA	negative	

What is the most likely diagnosis?

- ☐ Chronic active hepatitis
- ☐ Flaring up HBV infection
- ☐ Hepatic adenoma
- ☒ Hepatocellular carcinoma
- ☐ Amoebic liver abscess

Description

Hepatocellular carcinoma (HCC) is a primary malignancy of the liver and occurs predominantly in patients with underlying chronic liver disease and cirrhosis.

Hepatocellular carcinoma presents with rapid deterioration of chronic liver disease with weight loss, right upper quadrant abdominal pain, nausea and vomiting.

Positive HBsAg and IgG anti-HBc with negative HBV DNA indicates a chronic carrier.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 193

✓ Correct: 45

✗ Incorrect: 148

Average Score: 23.32 %

Question 195 of 247

Question Difficulty:

Hard

Mr. X is complaining of abdominal pain, diarrhea and heartburn for 3 weeks. He has no past medical history. He smokes 25 cigarettes per day and drinks 30 unites of alcohol per week. His GP prescribed omeprazole 20 mg daily but it did not improve his symptoms.

Endoscopy reveals multiple gastric and duodenal ulcers. His gastric pH was 1.8 and fasting serum gastrin was 670 pg/ml.

What is the most likely diagnosis?

- ☐ Helicobacter pylori-infection
- ☐ Atrophic gastritis
- ☒ Zollinger-Ellison syndrome
- ☐ Gastric adenocarcinoma
- ☐ Peptic ulcer disease

Description

Zollinger-Ellison syndrome typically presents with multiple gastroduodenal ulcers causing abdominal pain and diarrhea. It is the only cause of hypergastrinemia causes that cause that much higher level of fasting serum gastrin.

Other findings include gastric acid secretion > 15 mEq/hour (normal is < 10 mEq/hour) and gastric pH is <2.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 194

✓ Correct 45

✗ Incorrect 149

Average Score: 23.2 %

Question 196 of 247

Question Difficulty:

Hard

Mr. X is complaining of progressive increased itching for 2 months. He has past medical history of Parkinsonism, depression and seizures. His liver functions show:

Bilirubin	32 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	110 U/L	(8-20 U/L)
Serum creatine kinase	430 U/L	(25-90 U/L)

Which of the following CNS drugs would cause his liver profile?

- ☐ MAOIs
- ☒ Chlorpromazine
- ☐ Phenytoin
- ☐ Sodium valproate
- ☒ Halothane

Description

- ☐ MAOIs
- ☒ Chlorpromazine
- ☐ Phenytoin
- ☐ Sodium valproate
- ☒ Halothane

Description

The liver functions tests show a cholestatic picture. All the listed drugs cause hepatotoxicity except Chlorpromazine which causes liver cholestasis.

Drugs cause hepatotoxicity:

- Paracetamol
- Sodium valproate, phenytoin
- MAOIs
- Halothane
- Anti-tuberculosis: isoniazid, rifampicin, pyrazinamide
- Statins
- Alcohol
- Amiodarone
- Methyldopa

Drugs cause cholestasis:

- Oral contraceptive pill
- Antibiotics: flucloxacillin, co-amoxiclav, erythromycin, nitrofurantoin
- Anabolic steroids, testosterone
- Phenothiazines: chlorpromazine, prochlorperazine
- Sulphonylurea
- Fibrates
- Nifedipine

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 195

Correct: 45

Incorrect: 150

Average Score: 23.08 %

Question 197 of 247

Question Difficulty:

Hard

Mr. X is complaining of acute episode of ulcerative colitis. He open his bowel 7 times daily with bloody diarrhea associated with mucus. Examination reveals he lost 2 stone of weight over 2 weeks. His temperature was 37.7 C and his pulse was 88 per minute.

Investigations reveal:

Bilirubin	19 μ mol/L	(2-17 μ mol/L)
ALT	42 U/L	(8-20 U/L)
Serum creatinine	88 mmol/L	(53-106 mmol/L)
Hemoglobin	11 g/dL	(13.5-17.5 g/dL)
MCV	75 fl	80-100 fl
Leukocyte count	14×10^9 /L	(4.0-11.0 $\times 10^9$ /L)
ESR	28 1 st hour	(10-20 1 st hour)
CRP	25 mg/L	(< 3 mg/L)

Which of the above data indicates a sever disease?

- ☐ Temperature
- ☐ Weight loss
- ☒ Bloody stool frequency
- ☒ Erythrocyte sedimentation rate
- ☐ C reactive protein

Description

Truelove-Vitts criteria of severe colitis

Bloody stool frequency of six or more per 24 hours and one of:

- Pulse >90
- Temperature >37.8°C
- Hemoglobin <10.5 g/dL
- C reactive protein >30 mg/L
- Erythrocyte sedimentation rate >30 mm/h

Question 198 of 247

Question Difficulty:

Hard

Mr. X is complaining of abdominal pain, vomiting and diarrhea for 10 days. He reports the pain is related to meals as it occur 15 minutes post meal. He has past medical history of myocardial infarction.

Examination reveals pulse 120/min irregularly irregular. Abdominal examination reveals a soft abdomen but with tenderness in the left and right iliac fossa. Bowel sounds are present and of normal pitch. Rectal examination is normal.

Colonoscopy shows colonic wall pallor. Investigations reveal:

Serum creatinine	88 mmol/L	(53-106 mmol/L)
Serum urea	5.2 mmol/L	(2.5-7.1 mmol/L)
pH	7.31	(7.35-7.45)
Serum sodium	138 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
Serum bicarbonate	20 mmol/L	(22-28 mmol/L)
Hemoglobin	9 g/dL	(Male: 13.5-17.5 g/dL)
Leukocyte count	13 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)

What is the most likely diagnosis?

pH	7.31	(7.35-7.45)
Serum sodium	138 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
Serum bicarbonate	20 mmol/L	(22-28 mmol/L)
Hemoglobin	9 g/dL	(Male: 13.5-17.5 g/dL)
Leukocyte count	13 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)

What is the most likely diagnosis?

- ☐ Crohn colitis
- ☐ Ulcerative colitis
- ☒ Mesenteric ischemia
- ☐ Diverticulitis
- ☐ Acute duodenal ulcer

Description

Mesenteric ischemia is a medical condition in which inflammation and injury of the small intestine occurs due to inadequate blood supply.

It is frequently associated with an arrhythmia such as atrial fibrillation or arteriopathy as atherosclerosis and ischemic heart diseases.

It is manifested by severe abdominal pain 15-30 min post-meal and the passage of bloody stools. Later shock and metabolic acidosis with dehydration, hypotension, tachycardia and confusion develops.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 197

✓ Correct: 45

✗ Incorrect: 152

Average Score: 22.84 %

Question 199 of 247

Question Difficulty:

Hard

Mr. X is complaining of recurrent flare up Crohn disease. His gastroenterologist decided to start maintaining remission drugs. What is the management of choice?

- ☐ Oral corticosteroids
- ☐ Topical corticosteroids
- ☒ Surgical resection
- ☐ Oral mesalazine
- ☐ Topical mesalazine

Description

Topical mesalazine or corticosteroids are first line in maintaining remission of Crohn disease. Mesalazine is superior to corticosteroids due to fewer side effects.

Indications of surgical resection include complications development such as obstructions, fistulas, or abscesses and if the disease does not respond to drugs.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 198

✓ Correct 46

✗ Incorrect 152

📈 Average Score: 23.23 %

Question 200 of 247

Question Difficulty:

Hard

Mr. X is complaining severe diarrhoea, flushing, sweating of 30 minutes after having a sushi meal in a Japanese restaurant.
What is the most likely diagnosis?

- ☐ *Campylobacter jejuni*
- ☒ *Scrombotoxin food poisoning*
- ☐ *Bacteroides fragilis*
- ☐ *Bacillus cereus*
- ☐ *Staphylococcus food poisoning*

Description

Scrombotoxin food poisoning is caused by the ingestion of foods that contain high levels of histamine and possibly other vasoactive amines and compounds (e.g. tuna fish).

It is presented by severe diarrhoea, flushing, sweating and a hot mouth with a very short incubation period of 10-60 minutes.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 199

✓ Correct 46

✗ Incorrect 153

📈 Average Score: 23.12 %

Question 201 of 247

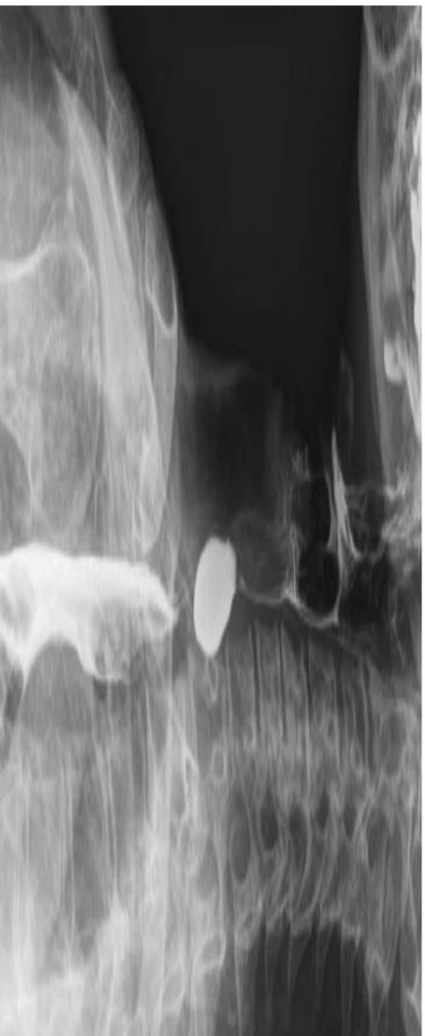
Question Difficulty:

Hard

Mr. X is complaining of intermittent difficulty with swallowing and halitosis. He mentioned he regurgitates undigested rotten food.

Examination reveals he has no lost weight, his pulse is 80 per minute and regular, heart sounds are normal and his chest is clear. His abdomen is soft and non-tender, with no masses. ECG, CBC and CXR all are normal.

Barium swallow was arranged and the result was shown in the image.



What is the most likely diagnosis?

- ☐ GERD
- ☐ Achalasia
- ☒ Pharyngeal pouch
- ☐ Esophageal rupture
- ☐ Esophageal cancer

Description

This patient has pharyngeal pouch. It is manifested by dysphagia and sense of a lump in the neck, regurgitation of rotten food in the mouth and halitosis.

The barium swallow is the procedure of choice; it reveals the diverticulum of the mucosa of the pharynx, just above the cricopharyngeal muscle.

Question 202 of 247

Question Difficulty:

Hard

Mr. X was referred by his GP for investigation of jaundice. His blood results reveal:

Bilirubin	40 $\mu\text{mol/L}$ (conjugated)	
ALT	23 U/L	(8-20 U/L)
AST	19 U/L	(8-20 U/L)
Serum creatine kinase	103 U/L	(25-90 U/L)

Liver biopsy reveals a number of dark granules within the hepatocytes.

What is the most likely diagnosis?

- ☒ Dubin-Johnson syndrome
- ☐ Gilbert syndrome
- ☐ Rotor syndrome
- ☐ Sclerosing cholangitis
- ☐ Primary biliary cirrhosis

What is the most likely diagnosis?

- ☒ Dubin-Johnson syndrome
- ☐ Gilbert syndrome
- ☐ Rotor syndrome
- ☐ Sclerosing cholangitis
- ☐ Primary biliary cirrhosis

Description

Dubin-Johnson syndrome (DJS) is an autosomal recessive disorder that causes an increase of conjugated bilirubin in the serum due to a defect in the ability of hepatocytes to secrete conjugated bilirubin into the bile.

The liver biopsy will show a dark pink or black appearance due to pigment accumulation.

Rotor syndrome is an autosomal recessive disorder. It is similar to Dubin-Johnson syndrome causing conjugated hyperbilirubinemia with exception being that the liver cells are not pigmented.

Question 203 of 247

Question Difficulty:

Hard

Mr. X was referred from his GP due to mild jaundice after he had recently complained of conjugal symptoms. All examinations were normal except his mild jaundice. He had similar episodes in the past all recurs uneventfully.

Investigations show:

Bilirubin	40 $\mu\text{mol/L}$ (unconjugated)	
ALT	30 U/L	(8-20 U/L)
AST	21 U/L	(8-20 U/L)
Serum creatine kinase	103 U/L	(25-90 U/L)
Urine analysis	Free	

What is the management of choice?

- ☐ Cholestyramine
- ☐ Antihistamines
- ☐ Ursodeoxycholic acid
- ☒ Follow up
- ☐ Omega 3 fatty acids

Description

This patient has Gilbert syndrome. It is a genetic liver disorder caused by reduction in the glucuronidase enzyme activity causes unconjugated hyperbilirubinemia. Mild jaundice may appear under conditions of exertion, stress, fasting, and infections, but the condition is otherwise usually asymptomatic.

Gilbert syndrome usually does not need any treatment.

CHECK ANSWER

END SESSION

NEXT

Question 204 of 247

Question Difficulty:

Hard

Mr. X is complaining of bloody diarrhea and dysentery for 10 days after returning from a safari in Africa. His stool analysis reveals trophozoites. He had a course of metronidazole but the symptoms recurred 3 weeks later.

What is the management of choice?

- ☒ Metronidazole plus diloxanide
- ☐ Tinidazole
- ☐ Ciprofloxacin
- ☒ Albendazole
- ☐ Cefotaxime

Description

This patient is complaining of Amebiasis. Amoebic dysentery is presented by tenesmus with bloody diarrhea with mucus that is not associated with fever unlike the bacillary dysentery.

Course of oral metronidazole or tinidazole is the management of choice to eradicate the trophozoites followed by a ten day course of diloxanide to eradicate gut cysts.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 203

✓ Correct 47

✗ Incorrect 156

Average Score: 23.15 %

Question 205 of 247

Question Difficulty:

Hard

Mr. X was complaining of progressive chronic cough, dyspnea and pleuritic chest. Examination reveals he has jaundice and mild fever. Chest examination shows dullness on percussion on lower right lung. Abdominal examination was normal.

CXR shows elevated right diaphragm with free chest. Abdominal ultrasound shows a single cyst measures 8 cm in diameter with a calcified appearance. Liver function tests show:

Bilirubin	36 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	120 U/L	(8-20 U/L)
Serum creatine kinase	455 U/L	(25-90 U/L)

What is the most likely cause of his symptoms?

- ☐ E. coli
- ☐ Schistosomiasis
- ☒ Amebiasis
- ☐ Echinococcus
- ☐ Staph. Aureus

Description

Hydatid cyst is a parasitic infestation by a tapeworm of the genus Echinococcus granulosus. It affects people living near rural sheep farms.

It is featured by pressure effects in the liver causing progressive liver dysfunction, obstructive jaundice and abdominal pain or pressure effects in the lungs causing chronic cough, dyspnea, pleuritic chest pain, and hemoptysis

Ultrasonography and CT scan have an accuracy of 98% to demonstrate the daughter cysts and calcification.

CHECK ANSWER

END SESSION

NEXT

Question 206 of 247

Question Difficulty:

Hard

Mr. X is complaining of abdominal pain, tenesmus and diarrhoea for 7 days. He also reports he have seen some blood and mucus in his stool. He had recently returned from safari in Africa.

Examination reveals a temperature of 37.5 C. His abdomen is generally tender to touch but no masses could be felt, and he has active bowel sounds.

What is the most likely diagnosis?

- ☐ Giardiasis
- ☐ Pseudomembranous colitis
- ☐ Campylobacter enterocolitis
- ☐ Bacillary dysentery
- ☒ Amoebic dysentery

Description

Amoebiasis is caused by *Entamoeba histolytica* a protozoan that is found worldwide (especially in developing countries).

Amoebic dysentery is presented by tenesmus with bloody diarrhoea with mucus that is not associated with fever unlike the bacillary dysentery.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 205

✓ Correct 47

✗ Incorrect 158

📊 Average Score: 22.93 %

Question 207 of 247

Question Difficulty:

Hard

Mr. X is suffering from lethargy, diarrhea together with joint pains, eye redness and intermittent fever. He also noticed lumps in his neck. He has a past medical history of seizures and recurrent endocarditis.

Investigations reveal macrocytic anemia and hypoalbuminemia. Upper GI endoscopy and biopsy was performed.

Which of the following if present in the biopsy sample would confirm diagnosis?

- ☐ Progressive increase in crypt length and density
- ☐ Mucosal edema
- ☒ PAS-positive macrophages in the lamina propria
- ☐ Villous atrophy
- ☒ Lamina propria infiltration with lymphocytes

Description

This patient has Whipple disease. It is a systemic disease most likely caused by a gram-positive bacterium, *Tropheryma whippelii*. It is typically affects middle-aged men.

It is manifested by malabsorption, non-destructive seronegative arthritis of large joints, lymphadenopathy, uveitis, endocarditis and CNS dementia, confusion, headaches and seizures.

Duodenal biopsy shows villous atrophy and diagnosis is confirmed by the presence of PAS-positive macrophages in the lamina propria containing non-acid-fast gram-positive bacilli.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 206

✓ Correct 48

✗ Incorrect 158

Average Score: 23.3 %

Question 208 of 247

Question Difficulty:

Hard

Mr. X was complaining of right upper abdomen colicky pain. Abdominal ultrasound shows multiple gall stone and an impacted stones in the common bile duct. His liver function tests show:

Bilirubin	66 µmol/L	(2-17 µmol/L)
ALT	42 U/L	(8-20 U/L)
Serum creatine kinase	410 U/L	(25-90 U/L)

What is the management of choice?

- ☐ Percutaneous cholecystostomy
- ☐ Cholestyramine
- ☒ Laparoscopic cholecystectomy
- ☒ Weight loss
- ☐ Follow up

Description

- ☐ Percutaneous cholecystostomy
- ☐ Cholestyramine
- ☒ Laparoscopic cholecystectomy
- ☒ Weight loss
- ☐ Follow up

Description

Asymptomatic gallstones need follow up only. Laparoscopic cholecystectomy is indicated in symptomatic gallbladder stones.

Percutaneous cholecystostomy is indicated in gallbladder empyema when surgery is contraindicated at presentation and conservative management is unsuccessful.

CHECK ANSWER

END SESSION

NEXT

Question 209 of 247

Question Difficulty:

Hard

Mr. X is complaining of history of 2 months of watery diarrhoea and bloating that developed after returning from a safari in Egypt.

Abdominal examination shows diffuse lower abdominal tenderness but there is no guarding or rigidity. His temperature is 37.5 C. Stool examination shows no bacteria or cysts.

What is the investigation of choice?

- ☐ Lower GI endoscopy
- ☒ Duodenal aspiration and examination
- ☐ Upper GI endoscopy
- ☐ Stool culture
- ☐ Serological testing

Description

This patient is complaining of Giardiasis. It has a long incubation period (more than a month) and causes prolonged, non-bloody diarrhoea with flatulence, cramps, bloating and nausea.

Stool microscopy is of choice; it shows flagellate protozoan or its cysts. If stool microscopy is negative, the parasite is found in duodenal aspirates or biopsy.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 208

✓ Correct 48

✗ Incorrect 160

📊 Average Score: 23.08 %

Question 210 of 247

Question Difficulty:

Hard

Mrs. was admitted to the ED after she committed suicide by ingesting 2 handful paracetamol tablets. Which of the followings does not cause an increased risk from paracetamol toxicity?

- ☐ Carbamazepine
- ☒ Smoking
- ☐ Anorexia nervosa
- ☐ Alcohol
- ☐ HIV

Description

Risk factors of developing hepatotoxicity following paracetamol toxicity

- Alcoholics
- P450 enzyme inducers (rifampicin, phenytoin, carbamazepine)
- Anorexia nervosa: decreased glutathione stores
- HIV

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 209

✓ Correct 49

✗ Incorrect 160

Average Score: 23.44 %

Question 211 of 247

Question Difficulty:

Easy

Mr. X is suffering from progressive dysphagia first to solid food and now to liquids as well and hematemesis for 3 weeks. He is a heavy smoker and had a past history of CREST syndrome.

Examination reveals weight loss, palpable lymph nodes in the left supraclavicular fossa, and wheeze throughout both lung fields. Abdominal examination is unremarkable.

His CXR shows widened mediastinum. CBC shows anemia and elevated ESR.

What is the investigation should be ordered for diagnosis?

- ☐ CT chest
- ☐ 24 H PH monitoring
- ☒ Barium swallow
- ☐ Endoscopy and biopsy
- ☐ Esophageal manometry

Description

This patient is complaining of esophageal cancer. It is manifested by dysphagia initially for solids progressing to include liquids, weight loss, hematemesis and retrosternal pain.

The investigation of choice would be upper GI endoscopy with biopsy. CT chest is used for staging. Barium swallow shows irregular filling defect with shouldering.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 210

Correct 49

Incorrect 161

Average Score: 23.33 %

Question 212 of 247

Question Difficulty:

Hard

70 years Mr. X was found to have a blood in stool in regular follow. A colonoscopy was done and reveals 3 adenomatous polyps in the ascending colon ranging from 0.9 CM to 0.7 CM and a larger one measuring 1.2 CM.

When he should have a further routine surveillance?

- ☐ He does not need further routine surveillances
- ☒ Repeat colonoscopy every 2 years
- ☐ Repeat colonoscopy every 6 months
- ☐ Repeat colonoscopy every 3 years
- ☐ Repeat colonoscopy every 12 months

Description

NHS national screening program offers screening with FOBT every 2 years to all men and women aged 60 to 69 years. Patients with abnormal results are offered a colonoscopy for defining risk groups.

- Low risk of cancer (≤2 polyps, both <1cm) do not require further routine surveillance
- Intermediate risk of cancer (3-4 small adenomas <1cm or one adenoma >1cm) should have a further colonoscopy in three years
- High risk of cancer (≥5 small adenomas or ≥3 where one is >1cm) should have a further colonoscopy in a year.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 211

✓ Correct 49

✗ Incorrect 162

📊 Average Score: 23.22 %

Question 213 of 247

Question Difficulty:

Hard

Mr. X is complaining of lethargy, weight loss and diarrhea for 3 months. He has recently returned from a period of work in Thailand.

Examination reveals oral ulcers, red itchy eyes and tender nodules on the shins. He has tenderness in the right iliac fossa and a vague right iliac fossa mass. AXR shows dilated loops of small bowel.

Upper and lower GIT endoscopy reveals patchy inflammation in all layers, down to the serosa spreading from the esophagus to the rectum with frequent deep fissured ulcers and few abscesses.

What is the most likely diagnosis?

- ☒ Crohn disease
- ☐ Traveller diarrhea
- ☐ Ulcerative colitis
- ☐ Dengue fever
- ☐ Celiac disease

Description

Crohn disease is an idiopathic, chronic inflammatory process of the gastrointestinal tract that can affect any part of the tract. Pathological features of Crohn disease include:

- Patchy inflammation in all layers, down to the serosa, this predisposes to strictures, fistulas and adhesions
- Edema of mucosa and submucosa, combined with deep fissured ulcers (rose-thorn) leads to a 'cobblestone' pattern
- Crypt abscesses are scanty in comparison to ulcerative colitis
- Lymphoid aggregates
- Non-caseating granulomas

CHECK ANSWER

END SESSION

NEXT

Question 214 of 247

Question Difficulty:

Hard

Mr. X was found to have jaundice 2 month after having a blood transfusion. Investigations show:

Bilirubin	25 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	780 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBsAg	positive	

Which of the following HBV serological tests is the most sensitive in confirming continued viral replication?

- ☐ HBeAg
- ☐ HBV DNA
- ☒ IgM anti-HBc
- ☐ Anti-HBs
- ☐ Anti-HBeAg

- ☐ HBeAg
- ☐ HBV DNA
- ☒ IgM anti-HBc
- ☐ Anti-HBs
- ☐ Anti-HBeAg

Description

Positive HBsAg would indicate the patient has infection or a carrier. HBV DNA is the most sensitive index of viral replication in acute and chronic disease.

CHECK ANSWER

END SESSION

NEXT

Question 215 of 247

Question Difficulty:

Hard

Mr. X is admitted to the ED due to sudden onset hematemesis. He has no past history except of chronic heart burn was controlled by antacids. He is teetotaler and smokes 30 cigarettes per day.

Upper GI endoscopy was performed and reveals a bleeding ulcer in the cardia of the stomach.

What is the management of choice?

- ☐ IV pantoprazole followed by endoscopic ligation of left gastric artery
- ☐ IV pantoprazole and terlipressin
- ☒ IV pantoprazole followed by endoscopic ligation of left gastro-omental artery
- ☐ Endoscopy and ligation of left gastro-omental artery followed IV pantoprazole
- ☐ Endoscopy and ligation of left gastric artery followed IV pantoprazole

Description

NICE Guidelines 2012 recommend endoscopic therapy for bleeding peptic ulcers is the management of choice. PPI should be delayed until finished endoscopy.

The cardia of the stomach is supplied by the left gastric artery and it must be ligated to stop bleeding. Left gastro-omental artery supplies the upper part of greater curvature.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 214

✓ Correct 49

✗ Incorrect 165

Average Score: 22.9 %

Question 216 of 247

Question Difficulty:

Average

Mr. X is admitted to the ED with frank hematemesis. He has a history of alcoholic liver disease w/ previous 2 episodes of variceal bleeding. Examination reveals he was shocked and semi-conscious with a pulse of 130/min and a blood pressure of 80/40 mmHg. Resuscitation was started by fluids and fresh frozen plasma.

What is the most appropriate treatment to be added?

- ☐ Omeprazole
- ☐ Terlipressin
- ☒ Tranexamic acid
- ☐ Propranolol
- ☐ Octreotide

Description

Terlipressin is the most licensed vasoactive agent in reducing variceal bleeding. It is used until the patient is ready for endoscopy. Octreotide has little effect.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 215

✓ Correct 49

✗ Incorrect 166

📊 Average Score: 22.79 %

Question 217 of 247

Question Difficulty:

Hard

Mr. X with a long history of Crohn disease presents with increased lethargy, weight loss and diarrhoea. He had undergone a small bowel resection 3 times over 2 years. Investigations reveal:

Hemoglobin	8 g/dL	(13.5-17.5 g/dL)
MCV	112 fl	80-100 fl
Leukocyte count	$8 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	1.9 mmol/L	(2.1-2.8 mmol/L)
ESR	12	(10-20 1 st hour)

What is the management of choice?

- ☐ Pancreatic enzyme supplements
- ☐ Vitamin supplements
- ☐ Oral diet with initial course of metronidazole
- ☐ Codeine phosphate to reduce diarrhea
- ☒ Long-term total parenteral nutrition (TPN)

Description

This patient has short bowel syndrome due to extensive resection leads to chronic diarrhea and malabsorption. Total parenteral nutrition is the management of choice if extensive resection or complications develop. A course of metronidazole may be needed to eradicate bacterial overgrowth.

CHECK ANSWER

END SESSION

NEXT

Question 218 of 247

Question Difficulty:

Hard

Mr. X is complaining of chronic diarrhea, which he finds hard to flush away. He has past medical history of diabetes mellitus type 1 and primary biliary cirrhosis. Investigations reveal:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
MCV	108 fl	80-100 fl
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
Serum albumin	28	(35 - 50 g/L)
Antitendomyasal IgA	positive	

What is the management of choice?

- ☐ Prednisolone
- ☒ Gluten free diet
- ☐ Doxycycline
- ☐ Metronidazole
- ☒ Lactose free diet

Description

This patient has celiac disease. It is associated malabsorption symptoms as macrocytic anemia and hypocalcemia, dermatitis herpetiformis and other autoimmune disorders as diabetes mellitus type 1, hypothyroidism, vitiligo and primary biliary cirrhosis.

The management of celiac disease is by gluten-free diet.

CHECK ANSWER

END SESSION

NEXT

Question 219 of 247

Question Difficulty:

Hard

10 years old boy was admitted to the ED after he accidentally ingested 8x500 mg of his father paracetamol tablets 2 hours ago. He does not complain of any symptoms except some anorexia. All the investigations were normal. What should be done immediately?

- ☒ Inpatient admission and follow up
- ☐ Discharge home
- ☐ Gastric lavage
- ☐ Activated charcoal
- ☐ I.V. N-acetylcysteine

Description

This boy has no paracetamol toxicity. Minimum toxic dose is 7.5-10 g for adults and 150 mg/kg for children. He ingested 4 g and his toxic dose is 5 g.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 218

✓ Correct 50

✗ Incorrect 168

📊 Average Score: 22.94 %

Question 220 of 247

Question Difficulty:

Easy

Mr. X is complaining of severe right upper quadrant pain and severe itch. He has past medical history of liver cirrhosis and hepatic cancer. Examination reveals jaundice in his skin and sclera. Investigations reveal bilirubin 120 $\mu\text{mol/L}$, ALT 260 U/L and serum creatine kinase 820 U/L. Abdominal ultrasound shows mass in the head of the pancreas and biliary dilatation.

What is the management of choice?

- ☐ ERCP with stenting
- ☒ Cholecystectomy
- ☐ Oral Antibiotics
- ☐ Whipple procedure
- ☐ Cholecystectomy

Description

This patient has hepatic obstruction as evidenced by his deep jaundice and obstructive picture on liver function testing. ERCP with stenting is the management of choice.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 219

✓ Correct 50

✗ Incorrect 169

📈 Average Score: 22.83 %

Question 221 of 247

Question Difficulty:

Easy

Mr. X is complaining of vomiting and painless watery diarrhoea. He just returned from a holiday in the Middle-East.

Examination reveals he is severely dehydrated and gives a history of passing voluminous watery stools that look like rice water, mixed with mucus and blood. Investigations reveal hyponatraemia and elevated serum creatinine.

What is the most likely diagnosis?

- ☐ Amoebic dysentery
- ☒ Cholera
- ☐ Salmonella
- ☐ Shigella
- ☐ Typhoid fever

Description

Cholera is an intestinal infection caused by *Vibrio cholerae*. It causes a profuse secretory diarrhoea. Incubation period is 1-5 days. Symptoms begin with the sudden onset of painless watery diarrhoea that may quickly become voluminous (rice water diarrhoea) and is often followed by vomiting and severe dehydration (patient may lose >10% of normal body weight).

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered: 220

✓ Correct: 50

✗ Incorrect: 170

📊 Average Score: 22.73 %

Question 222 of 247

Question Difficulty:

Easy

70 years Mr. X is complaining of abdominal pains and bloating associated with fever and intermittent diarrhoea over the past week.

Examination reveals fever of 38.5 C and left lower quadrant abdominal tenderness with no palpable masses. Investigations reveal:

Bilirubin	9 µmol/L	(2-17 µmol/L)
ALT	16 U/L	(8-20 U/L)
Serum creatinine	79 mmol/L	(53-106 mmol/L)
Leukocyte count	9 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	180 k/mm ³	(150-450 million/mm ³)
Neutrophils	7 X10 ⁹ /L	(2.5-7.5 x 10 ⁹ /L)
ESR	12	(10-20 1st hour)

What is the most likely diagnosis?

- ☐ Lactose intolerance
- ☒ Acute diverticulitis
- ☐ Irritable bowel syndrome
- ☐ Ischemic colitis
- ☐ Ulcerative colitis

Description

Diverticulitis is defined as an inflammation of one or more diverticula (small pouches created by herniation of mucosa into the wall of the colon). Diverticulitis is generally considered a disease of the elderly.

It is manifested by abdominal pain, change in bowel habits, nausea and vomiting, flatulence and bloating. Localized abdominal tenderness is seen in the area of the affected diverticula (mostly Left lower quadrant) and fever.

CHECK ANSWER

END SESSION

NEXT

Question 223 of 247

Question Difficulty:

Hard

Mr. X is complaining of 6 month history of diarrhoea and abdominal cramps. He also noticed facial flushing. Examination shows chest wheeze on auscultation and abdominal examination reveals hepatomegaly.

Investigations show 24 hour urine HIAA 1250 $\mu\text{mol/l}$ ($<70 \mu\text{mol/l}$). Abdominal CT shows a rectal mass and 3 liver masses, 2 on the right lobe and on 1 left lobe.

What is the management of choice?

- ☒ Surgical removal of iliac mass radiotherapy for liver masses
- ☐ Octreotide
- ☐ Surgical removal of all masses
- ☐ Chemotherapy
- ☐ Interferon-alpha

Description

This patient has malignant carcinoid syndrome. It is manifested by flushing of the face, severe diarrhoea, asthma attacks and hypotension.

Tricuspid regurgitation and pulmonary stenosis are less common. Liver metastasis and cirrhosis are common.

Surgical removal of all tumor tissues is the best treatment, radiotherapy or chemotherapy for metastatic disease for difficult removal of masses. Somatostatin analogues e.g. octreotide is used for controlling of symptoms as flushing and endocrine manifestations. Interferon-alpha is used for preventing tumor growth.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 222

✓ Correct 52

✗ Incorrect 170

Average Score: 23.42 %

Question 224 of 247

Question Difficulty:

Hard

Mrs. X is complaining of jaundice and colicky right upper quadrant pain. She has no past medical history and on no treatment except oral contraception.

Examination reveals she is obese, afebrile with mild jaundiced. Abdominal examination reveals tenderness in the right upper quadrant.

Hemoglobin	11 g/dL	(13.5-17.5 g/dL)
Mean corpuscular volume	99 fl	80-100 fl
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	210 /mm ³	(150-450 million/mm ³)
Serum creatinine	69 mmol/L	(53-106 mmol/L)
Bilirubin	66 µmol/L	(2-17 µmol/L)
ALT	42 U/L	(8-20 U/L)
Serum creatine kinase	410 U/L	(25-90 U/L)
ESR	8 1st hour	(< 10)

What is the most likely diagnosis?

Serum creatinine	69 mmol/L	(53-106 mmol/L)
Bilirubin	66 µmol/L	(2-17 µmol/L)
ALT	42 U/L	(8-20 U/L)
Serum creatine kinase	410 U/L	(25-90 U/L)
ESR	8 1st hour	(< 10)

What is the most likely diagnosis?

- ☐ Cholangiocarcinoma
- ☒ Cholelithiasis
- ☐ Ascending cholangitis
- ☒ Primary biliary cirrhosis
- ☐ Primary carcinoma of the gallbladder

Description

This patient has Gallstones. Gallstone disease may be asymptomatic gallstones or symptomatic gallstones, characterized by episodes of biliary colic or complicated cholelithiasis causing biliary obstruction.

Obesity and OCPs are common risk factors. It is manifested by normal laboratory test results until biliary obstruction causing obstructive jaundice.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 223

✓ Correct: 53

✗ Incorrect: 170

Average Score: 23.77 %

Question 225 of 247

Question Difficulty:

Hard

Mr. X was investigated for anemia where he was found to have blood associated with stool in fecal occult blood testing. He has a family history of colon cancers. Colonoscopy shows an ulcerative mass in the ascending colon. Biopsy confirms a colorectal cancer.

What is the most likely diagnosis?

- ☒ Familial adenomatous polyposis
- ☐ Sporadic cancer
- ☐ Simple adenoma
- ☐ Hereditary non-polyposis colon cancer
- ☐ Metastatic cancer

Description

Hereditary non-polyposis colon cancer syndrome is an autosomal dominant condition. It is the most common type of inherited colorectal cancer, it causes of about 6% of all colorectal cancers, and it poses about a 40% lifetime risk for developing colorectal cancer.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

 Answered 224

✓ Correct 63

✗ Incorrect 171

 Average Score: 23.66 %

Question 226 of 247

Question Difficulty:

Hard

Mr. X is complaining of weight loss and continuous abdominal pain radiating to the back for 3 months. He also reports yellowish discoloration of skin associated with itching.

Investigations show highly elevated serum bilirubin and creatine kinase with mild elevated ALT and amylase.

Which of the followings would confirm diagnosis?

- ☐ Measure serum CA19-9
- ☒ Pancreatic endoscopic ultrasound
- ☐ Endoscopic retrograde cholangiopancreatography
- ☐ Abdominal CT scan
- ☐ Laparoscopy

Description

Obstructive jaundice and weight loss are indicative of cancer of the head of the pancreas. ERCP or endoscopic ultrasound (in obstructive jaundice) and biopsy is diagnostic. CT is used for staging.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 225

✓ Correct: 54

✗ Incorrect: 171

📈 Average Score: 24 %

Question 226 of 247

Question Difficulty:

Hard

Mr. X with a past history of alcoholic cirrhosis presents with progressive exertional dyspnea for 3 months.

Examination reveals normal blood pressure and high JVP is elevated at 5 cm and marked pitting edema. Abdominal examination reveals a tense ascites. CXR shows bilateral pleural effusions. Investigations show:

Bilirubin	44 µmol/L	(2-17 µmol/L)
ALT	89 U/L	(8-20 U/L)
Serum creatinine	160 mmol/L	(53-106 mmol/L)
Serum sodium	128 mmol/L	(136-145 mmol/L)
Serum potassium	5.2 mmol/L	(3.5-5.0 mmol/L)
Urinalysis	Negative	

What is the most likely diagnosis?

- ☒ Acute tubular necrosis
- ☐ Septicemia
- ☐ Hepatorenal syndrome
- ☐ Membranous glomerulonephritis
- ☐ Nephrotoxic drugs

Description

Hepatorenal syndrome (HRS) is the development of renal failure in patients with advanced chronic liver disease due to renal vasoconstriction.

Hepatorenal syndrome is usually a diagnosis of exclusion of other causes of renal failure.

CHECK ANSWER

END SESSION

NEXT

Question 227 of 247

Question Difficulty:

Hard

Mr. X is suffering from abdominal pain, bloating and nausea after meals for 3 months. He reported he has lost 6 kg in weight and also had some blood stained diarrhea.

Proctoscopy shows edema of mucosa and submucosa, combined with deep fissured ulcers interspersed with normal looking mucosa skipping with non-caseating granulomas and scanty crypt abscesses. Investigations reveal:

Bilirubin	8 µmol/L	(2-17 µmol/L)
ALT	18 U/L	(8-20 U/L)
Serum creatinine	88 mmol/L	(53-106 mmol/L)
Hemoglobin	10 g/dL	(13.5-17.5 g/dL)
Leukocyte count	12 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)

What is the most likely diagnosis?

- ☒ Crohn disease
- ☒ Celiac disease
- ☐ Bacterial overgrowth
- ☐ Ulcerative colitis
- ☐ Cryptosporidium infection

Description

Crohn disease is an idiopathic, chronic inflammatory process of the gastrointestinal tract that can affect any part of the tract. Pathological

features of Crohn disease include:

- Patchy inflammation in all layers, down to the serosa, this predisposes to strictures, fistulas and adhesions
- Edema of mucosa and submucosa, combined with deep fissured ulcers (‘rose-thorn’) leads to a ‘cobblestone’ pattern
- Crypt abscesses are scanty in comparison to ulcerative colitis
- Lymphoid aggregates
- Non-caseating granulomas

Question 228 of 247

Question Difficulty:

Hard

Mr. X is complaining from tiredness, abdominal pain and intermittent diarrhoea for 2 months duration. He also reports weight loss and itching rashes over his elbow. He has a past history of hypothyroidism and vitiligo.

Investigations reveal megaloblastic anaemia, a low serum albumin and hypocalcaemia.

Which investigation would confirm diagnosis?

- ☒ Colonoscopy
- ☐ Abdominal MRI angio
- ☒ Duodenal biopsy
- ☐ Fasting gastrin
- ☐ Fecal fat collection

Description

This patient has celiac disease. It is associated malabsorption symptoms as macrocytic anaemia and hypocalcaemia, dermatitis herpetiformis and other autoimmune disorders as diabetes mellitus type 1, hypothyroidism, vitiligo and primary biliary cirrhosis.

Duodenal mucosal biopsy is diagnostic. It shows villous atrophy associated with a progressive increase in crypt length and density and lamina propria infiltration with lymphocytes.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 227

✓ Correct 54

✗ Incorrect 173

📊 Average Score: 23.79 %

Question 229 of 247

Question Difficulty:

Hard

Mr. X is complaining of non-specific lower left sided abdominal pain with intermittent diarrhoea and rectal bleeding for 1 week. He has no past medical history and he has no family history of colonic cancer.

Examination left lower quadrant tender and palpable mass. Investigations reveal leukocytosis and elevated ECR and CRP.

Which of the following investigations would help in diagnosis?

- ☐ Stool culture
- ☐ Abdominal AXR
- ☒ Abdominal CT
- ☐ MRI angiography
- ☐ Contrast enema

Description

This patient has diverticulitis complicated by diverticular abscess. Diverticulitis is manifested by localized abdominal tenderness is seen in the area of the affected diverticula (mostly left lower quadrant) and fever. Tender palpable mass and elevated inflammatory markers are present in complicated diverticulitis with abscess.

CT scanning of the abdomen is considered the best imaging method to confirm the diagnosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 228

✓ Correct 54

✗ Incorrect 174

📊 Average Score: 23.68 %

Question 230 of 247

Question Difficulty:

Easy

Mr. X is complaining of history of 6 months of diarrhea with flatulence, cramps, and bloating that developed after returning from a business trip in Malaysia. His stool is watery without blood and mucus.

Examination reveals he is afebrile and his abdomen is soft and non-tender. Investigations reveal:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
MCV	108 fl	80-100 fl
Leukocyte count	9 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
ESR	16	(10-20 1st hour)
Serum albumin	28	(35 - 50 g/L)
pANCA	Negative	

What is the most likely causative organism?

Serum potassium	3.4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
ESR	16	(10-20 1st hour)
Serum albumin	28	(35 - 50 g/L)
pANCA	Negative	

What is the most likely causative organism?

- ☐ Giardiasis
- ☐ Salmonella
- ☐ Campylobacter
- ☐ Shigella
- ☒ Amebiasis

Description

Giardiasis is a flagellate protozoan that causes major diarrheal disease found throughout the world.

It has a long incubation period (more than a month) and causes prolonged, non-bloody diarrhea with flatulence, cramps, bloating and nausea.

Malabsorption symptoms as macrocytic anemia and hypocalcemia and steatorrhea occur in prolonged cases.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 229

✓ Correct: 54

✗ Incorrect: 175

Average Score: 23.58
%

Question 231 of 247

Question Difficulty:

Hard

Mr. X is complaining of discomfort, bloating, flatulence and intermittent diarrhea. He has previously had a partial hemicolectomy for Crohn disease and he is on oral mesalazine.

There is nil of note on examination and investigations reveal:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
MCV	108 fl	80-100 fl
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
Serum albumin	33	(35-50 g/L)
Stool analysis	+++ bacteria	
Xylose breath test	Positive	

What is the management of choice?

- ☐ Prednisolone
- ☐ Amoxicillin
- ☐ Metoclopramide
- ☒ Metronidazole
- ☐ Ranitidine

Description

This patient has Bacterial overgrowth syndrome. It is a disorder of excessive bacterial growth in the small intestine. It is associated with structural abnormalities (congenital or surgical) or decreased gastric acidity. It is manifested by malabsorption, flatulence, abdominal pain, diarrhea and dyspepsia.

A course of one week of antibiotics including tetracycline, amoxicillin-clavulanate, fluoroquinolones and metronidazole is the management of choice.

CHECK ANSWER

END SESSION

NEXT



Question 232 of 247

Question Difficulty:

Easy

Mrs. X is suffering from increased fatigue and symptoms of itching. Examination shows xanthelasma and scratch marks consistent with her history of itching and she has severe jaundice in her eyes and skin.

Investigations reveal ALT 90 U/L (8-20 U/L) and serum creatine kinase 370 U/L (25-90 U/L). Percutaneous liver biopsy shows intra-hepatic biliary obstruction.

She was started on Ursodeoxycholic acid and her liver enzymes shows improvement but she is still suffering from itching. Antihistaminics fail to induce any improvement.

What is the management of choice?

- ☒ Referral for liver transplant
- ☐ Cholestyramine
- ☐ Azathioprine
- ☐ Prednisolone
- ☐ Ursodeoxycholic acid

Description

This patient has primary biliary cirrhosis (PBC). It is associated with other autoimmune diseases. It is manifested by cholestatic picture (significant elevations of the alkaline phosphatase with mild elevation of aminotransferases). Definitive diagnosis is done by percutaneous liver biopsy which shows intra-hepatic biliary obstruction.

Ursodeoxycholic acid is of choice. It is used to slow the progression of the disease. Pruritus is managed by antihistamines followed by cholestyramine followed by rifampicin followed by plasmapheresis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 231

Correct: 55

Incorrect: 176

Average Score: 23.81

Question 233 of 247

Question Difficulty:

Hard

Mr. X is suffering from abdominal pain and bloody diarrhea for 3 weeks. He reported he has lost 6 kg in weight and also had some non-blood stained diarrhea.

He has past medical history of right colon Crohn disease and he is on rectal mesalazine as a prophylaxis. Investigations reveal:

Hemoglobin	8 g/dL	(13.5-17.5 g/dL)
Leukocyte count	14 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	1.9 mmol/L	(2.1-2.8 mmol/L)
ESR	66	(10-20 1st hour)

He was started on oral sulfasalazine and prednisolone which showed no effect.

What is the management of choice?

- ☐ Surgical resection of the colon
- ☐ Infliximab plus sulfasalazine
- ☐ Total parenteral nutrition
- ☒ Azathioprine plus prednisolone
- ☐ Replace current drugs with methotrexate

Description

This patient has Crohn disease. Corticosteroids are first line drugs, amino-salicylate anti-inflammatory drugs (sulfasalazine and mesalazine) are alternatives. Immunomodulators such as azathioprine, methotrexate and infliximab (useful in healing fistulae) are added to first line drugs not alternatives if first line drugs fail.

Indications of surgical resection include complications development such as obstructions, fistulas, or abscesses and if the disease does not respond to drugs.

CHECK ANSWER

END SESSION

NEXT



Question 233 of 247

Question Difficulty:

Hard

14 years old boy is complaining of a 4-month history of diarrhea and weight loss. He reports he has not passed any fresh blood or melenas per rectum. He also reports he has recurrent painful oral ulcers and itching rashes over his elbow shown in the image.



Investigations reveal:

Hemoglobin	9 g/dL	(13.5-17.5 g/dL)
MCV	108 fl	80-100 fl
Leukocyte count	$9 \times 10^9 / L$	$(4.0-11.0 \times 10^9 / L)$
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.4 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	1.8 mmol/L	(2.1-2.8 mmol/L)
ESR	16	(10-20 1 st hour)
Serum albumin	28	(35 - 50 g/L)
pANCA	Negative	

What is the most likely diagnosis?

- ☐ Celiac disease
- ☐ Tropical sprue
- ☐ Crohn disease
- ☐ Whipple disease
- ☐ Bacterial overgrowth

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered: 232

Correct: 55

Incorrect: 177

Average Score: 23.71 %



Question 233 of 247

Question Difficulty:

Hard

14 years old boy is complaining of a 4-month history of diarrhea and weight loss. He reports he has not passed any fresh blood or melenia per rectum. He also reports he has recurrent painful oral ulcers and itching rashes over his elbow shown in the image.



Investigations reveal:

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What is the most likely diagnosis?

- ☒ Celiac disease
- ☐ Tropical sprue
- ☐ Crohn disease
- ☐ Whipple disease
- ☐ Bacterial overgrowth

Description

All the above causes' malabsorption symptoms as macrocytic anemia and hypocalcemia but celiac disease is associated with dermatitis herpetiformis. Celiac disease is associated with other autoimmune disorders as diabetes mellitus type 1, hypothyroidism and primary biliary cirrhosis.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 232

Correct 55

Incorrect 177

Average Score: 23.71 %

Question 234 of 247

Question Difficulty:

Hard

Mr. X is complaining of dyspepsia. An endoscopy shows a gastric ulcer and Urea breath test done during the procedure demonstrates H. pylori infection. A course of H. pylori eradication therapy is given.

What is the most appropriate test to confirm eradication after 6 weeks of management?

- ☒ Urea breath test
- ☐ Stool culture
- ☐ Hydrogen breath test
- ☐ Culture of gastric biopsy
- ☐ H. pylori serology

Description

Carbon-13 urea breath test or a stool antigen test, or laboratory-based serology are used for diagnosis but Carbon-13 urea breath test is only used for testing eradication.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

 Answered 233

✓ Correct 56

✗ Incorrect 177

 Average Score: 24.03 %

Question 235 of 247

Question Difficulty:

Hard

Mr. X is complaining of severe anemia. Fecal examination reveals blood in stool. Colonoscopy reveals an irregular mass in the sigmoid colon. Biopsy reveals a cancer invading through the colon wall penetrating the muscle layer. Abdominal CT shows ipsilateral lymph node involvement.

What is the expected 5 year survival?

- ☒ 80%
- ☐ 30%
- ☐ 98%
- ☐ 68%
- ☐ 60%

Description

Dukes staging of colorectal cancer

- Dukes' A: Invasion is only in the innermost lining, 5 year survival is 95- 100%
- Dukes' B: Invasion through the bowel wall penetrating the muscle layer but not involving lymph nodes, 5 year survival is 85- 75%
- Dukes' C: Involvement of lymph nodes, 5 year survival is 65- 40%
- Dukes' D: Widespread metastases, 5 year survival is 5- 10%

CHECK ANSWER

END SESSION

NEXT

Session Statistics

Answered 234

✓ Correct 57

✗ Incorrect 177

Average Score: 24.36 %

Question 236 of 247

Question Difficulty:

Hard

Mr. X with a long history of Liver disease was referred progressive lethargy. His liver biopsy shows cirrhosis. He has portal hypertension and previous episode of encephalopathy. Investigations show:

Bilirubin	28 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	980 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)
HBsAg	positive	
IgG anti-HBc	positive	
HBV DNA	17500 IU/ml	

What is the management of choice?

- ☒ Peginterferon alfa-2a
- ☐ Follow up
- ☒ Tenofovir
- ☐ Entecavir
- ☐ Lamivudine

Description

Patients with cirrhosis and detectable HBV DNA should have management regardless of HBeAg status, HBV DNA and ALT levels. Entecavir is first-line treatment in people with decompensated liver disease tenofovir is alternative (peginterferon alfa-2a is contraindicated).

CHECK ANSWER

END SESSION

NEXT

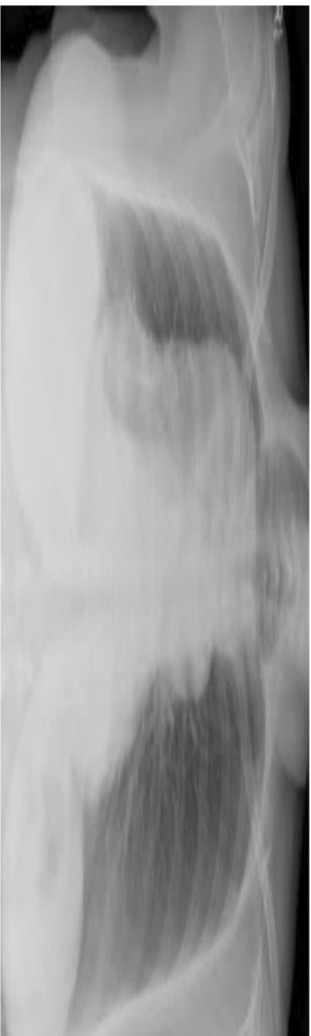
Question 237 of 247

Question Difficulty:

Average

Mr. X is complaining of 3 month history of dysphagia affecting both food and liquids from the start associated with symptoms of heartburn.

There is no weight loss or change in bowel habit. He is non-smoker, teetotaler and has no past medical history. CXR and barium swallow are shown in the images.



What is the most likely diagnosis?

- ☐ Esophagitis
- ☐ Pharyngeal pouch
- ☐ GERD
- ☐ Esophageal cancer
- ☒ Achalasia

Description

CXR shows wide mediastinum and fluid level and barium swallow shows dilated esophagus and lower end narrowing (bird's beak deformity).

Achalasia is a primary esophageal motility disorder. It is manifested by long history of dysphagia of both liquids and solids from the start.

Question 238 of 247

Question Difficulty:

Hard

Mr. X with a past medical history of heroin addict presents with profuse watery diarrhoea for 2 months. He has noticed 2 stones weight loss.

Examination reveals no abdominal pain and no fever. Stool examination was free. Investigations show:

Hemoglobin	13 g/dL	(Male: 13.5-17.5 g/dL)
Leukocyte count	6 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Platelets	190 k/mm ³	(150-450 million/mm ³)
Neutrophils	5 X10 ⁹ /L	(2.5-7.5 x 10 ⁹ /L)
Lymphocytes	0.3 X10 ⁹ /L	(1.5-3.5 x 10 ⁹ /L)
CD4 T-helper cell	150 /mm ³	1200 /mm ³

Which of the following is the most likely diagnosis?

- ☐ CMV enteritis
- ☒ Mycobacterium avium
- ☒ Cryptosporidium infection
- ☐ Giardiasis
- ☐ Toxoplasmosis

Description

This patient has HIV due to low CD4 count associated with Cryptosporidium infection. Cryptosporidium is the most common cause of diarrhoea in HIV patients.

Cryptosporidium is a protozoan that can cause respiratory and gastrointestinal diseases. It is presented by severe watery diarrhoea with or without a persistent cough in immunodeficient patients.

CHECK ANSWER

END SESSION

NEXT

Question 239 of 247

Question Difficulty:

Hard

Mrs. X who is in her 30th week of pregnancy is complaining of persistent generalized itching which had been getting progressively worse over the last 2 weeks.

Examination shows her abdomen was non-tender. Cardiorespiratory and neurological examinations were unremarkable. Urine dipstick analysis was normal. Investigations show:

Bilirubin	110 $\mu\text{mol/L}$	(2-17 $\mu\text{mol/L}$)
ALT	35 U/L	(8-20 U/L)
AST	32 U/L	(8-20 U/L)
Serum creatine kinase	460 U/L	(25-90 U/L)

Which of the following parameters if present would confirm the diagnosis?

- ☐ Hypoalbuminemia
- ☒ Thrombocytopenia
- ☒ Elevated serum bile salts
- ☐ Macrocytosis
- ☐ Elevated urate

Description

This female has intrahepatic cholestasis of pregnancy (ICP). It is a reversible type of hormonally influenced cholestasis that frequently develops in late pregnancy.

It is featured by elevated total serum bile acid, high alkaline phosphatase with modest elevations in aminotransferases and hyperbilirubinemia.

CHECK ANSWER

END SESSION

NEXT

Question 240 of 247

Question Difficulty:

Average

Mr. X is complaining of weight loss, hematemesis and dark stool for the past 4 months. He also noticed a central mass over the stomach. He has 25 pack-years smoking history. He works at a smoking fish factory.

Investigation reveals he is anemic and highly elevated ESR.

Which of the following would aid in confirming diagnosis?

- ☐ Urea breath test
- ☐ Abdominal ultrasound
- ☒ Upper GI endoscopy
- ☐ Stool analysis
- ☐ Abdominal CT

Description

This clinical picture of anemia, weight loss, epigastric mass and hematemesis is suggestive of gastric cancer. Smoking history and his work also predispose to gastric cancer.

Upper GI/T endoscopy and biopsy is diagnostic. It shows fungating or ulcerative mass. CT abdomen and pelvis is used to assess the disease spread and for staging.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 239

✓ Correct 58

✗ Incorrect 181

📊 Average Score: 24.27 %

Question 241 of 247

Question Difficulty:

Average

Mr. X was admitted to the ED due to hematemesis. He thought to have food poisoning where he began to have frequent episodes of vomiting and in the 4th episode he had a hematemesis and after that the vomiting stopped.

Which of the most likely diagnosis?

- ☐ Peptic ulcer
- ☐ Gastritis
- ☒ GERD
- ☐ Esophagitis
- ☐ Mallory-Weiss tear

Description

This patient is complaining of Mallory-Weiss tear. It is upper gastrointestinal bleeding secondary to longitudinal mucosal lacerations due to transient transmural pressure gradient across the region of the gastroesophageal junction. It account for an estimated 1-15% of cases of upper gastrointestinal bleeding.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 240

✓ Correct: 58

✗ Incorrect: 182

📈 Average Score: 24.17 %

Question 242 of 247

Question Difficulty:

Hard

Mr. X is complaining of persistent lethargy. Routine liver function tests show:

Bilirubin	25 µmol/L	(2-17 µmol/L)
ALT	780 U/L	(8-20 U/L)
Serum creatine kinase	160 U/L	(25-90 U/L)

A hepatitis screen was sent to the LAB and the results show:

- HBsAg positive
- HBeAg negative
- HBV DNA positive
- IgM anti-delta negative
- HCV RNA negative

What is the most likely diagnosis?

- ☐ Previous HBV immunization
- ☒ Chronic active hepatitis B disease
- ☐ Acute hepatitis B disease
- ☐ Hepatitis B carrier
- ☐ HBeAg-negative chronic hepatitis B

Description

HBeAg-negative chronic hepatitis B is associated with patients who carry precore mutation. It is manifested by positive HBsAg and HBV DNA with negative HBeAg

CHECK ANSWER

END SESSION

NEXT

Question 243 of 247

Question Difficulty:

Hard

On screening Mr. X with a family history of colon cancer by a colonoscopy, it was found he has number of polyps in the descending and sigmoid colon.

Which of the following features of colonic adenomas are least associated with an increased risk of malignant change?

- ☐ Family history of familial adenomatous polyposis
- ☐ Polyps of 1.3 CM
- ☒ Polyps with tubular architecture
- ☐ More than 10 polyps
- ☐ Flat adenomas

Description

Colonic adenomas associated with increased risk of malignant transformation include:

- Sessile or flat adenomas
- Polyps with villous architecture rather than tubular architecture
- Polyps exceeding 1 CM
- Multiple polyps
- Patient has familial adenomatous polyposis
- Patient has hereditary non-polyposis colorectal cancer

CHECK ANSWER

END SESSION

NEXT

Session Statistics

■ Answered 242

✓ Correct 58

✗ Incorrect 184

📊 Average Score: 23.97 %

Question 244 of 247

Question Difficulty:

Easy

Mr. X is suffering from confusion, fever, and headaches for 3 weeks after spending a holiday in Singapore. He noticed rashes over his back, arms, and legs. He also reports swollen knee joint.

Examination reveals a temperature of 39 C and heart rate of 72 per minute. Investigations show neutropenia and anemia.

Which of the following investigations would aid in diagnosis?

- ☒ **Widal antigen test**
- ☐ Stool microscopy
- ☒ **Blood culture**
- ☐ Stool culture
- ☐ PCR

Description

This patient has Typhoid fever. Relative bradycardia at the peak of the fever is an indicator of typhoid fever. Rose spots develop on the back, arms, and legs in up to 25% of cases late in the first week of fever.

Complications include intestinal perforation and hemorrhage, pneumonia, myocarditis, meningitis, acute cholecystitis and osteomyelitis.

Modern blood culture for typhoid illness and stool culture for non-typhoidal Salmonella species is diagnostic. PCR has high sensitivity and specificity; it may be alternative for blood culture. Serological tests (Widal test) have limited sensitivity and specificity.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered 243

✓ Correct 59

✗ Incorrect 184

📊 Average Score: 24.28 %

Question 245 of 247

Question Difficulty:

Hard

Mr. X was complaining of malaise, jaundice and dark urine 7 days after he returns from travelling in India. He has no past medical history and he is not an IV drug abuser or a homosexual.

Examination reveals tender hepatomegaly. Investigations show bilirubin 46 $\mu\text{mol/L}$, ALT 780 U/L and serum creatine kinase 160 U/L.

Which of the following investigations would help in diagnosis?

- ☐ HCV PCR
- ☒ HAV IgM
- ☐ HBsAg
- ☒ Liver biopsy
- ☐ Stool culture

Description

This patient has HAV infection. It is almost exclusively occurs from fecal-oral transmission. It presents with non-specific symptoms of anorexia, nausea and vomiting, fatigue, malaise and low-grade fever followed by icteric phase of bilirubinuria (dark urine and pale stool).

Diagnosis is made by serologic testing for IgM to HAV.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 244

✓ Correct: 59

✗ Incorrect: 185

📈 Average Score: 24.18 %

Question 246 of 247

Question Difficulty:

Hard

Mr. X is complaining of weight loss and continuous abdominal pain radiating to the back for 3 months. He also reports yellowish discoloration of skin associated with itching.

Investigations show highly elevated serum bilirubin and creatine kinase with mild elevated ALT and amylase.

Which of the followings would confirm diagnosis?

- ☒ Endoscopic retrograde cholangiopancreatography
- ☐ Pancreatic endoscopic ultrasound
- ☐ Laparoscopy
- ☐ Abdominal CT scan
- ☐ Measure serum CA19-9

Description

Obstructive jaundice and weight loss are indicative of cancer of the head of the pancreas. ERCP or endoscopic ultrasound (in obstructive jaundice) and biopsy is diagnostic. CT is used for staging.

CHECK ANSWER

END SESSION

NEXT

Session Statistics

📊 Answered: 245

✓ Correct: 59

✗ Incorrect: 186

📈 Average Score: 24.08 %

Question 247 of 247

Question Difficulty:

Hard

Mr. X is suffering from abdominal pain and bloody diarrhea for 3 weeks. He reported he has lost 6 kg in weight and also had some non-blood stained diarrhea.

He has past medical history of right colon Crohn disease and he is on rectal mesalazine as a prophylaxis. Investigations reveal:

Hemoglobin	8 g/dL	(13.5-17.5 g/dL)
Leukocyte count	14 X10 ⁹ /L	(4.0-11.0 X 10 ⁹ /L)
Serum sodium	137 mmol/L	(136-145 mmol/L)
Serum potassium	3.2 mmol/L	(3.5-5.0 mmol/L)
Serum calcium	1.9 mmol/L	(2.1-2.8 mmol/L)
ESR	66	(10-20 1st hour)

He was started on oral sulfasalazine and prednisolone which showed no effect.

What is the management of choice?

- ☐ Infliximab plus sulfasalazine
- ☐ Total parenteral nutrition
- ☒ Azathioprine plus prednisolone
- ☐ Surgical resection of the colon
- ☐ Replace current drugs with methotrexate

Description

This patient has Crohn disease. Corticosteroids are first line drugs, amino-salicylate anti-inflammatory drugs (sulfasalazine and mesalazine) are alternatives. Immunomodulators such as azathioprine, methotrexate and infliximab (useful in healing fistulae) are added to first line drugs not alternatives if first line drugs fail.

Indications of surgical resection include complications development such as obstructions, fistulas, or abscesses and if the disease does not respond to drugs.

CHECK ANSWER

END SESSION

NEXT

Question 248 of 247

Question Difficulty:

Hard

Mr. X with no past medical history presents with a right upper abdominal pain. Examination reveals a palpable non-tender mass in the right hypochondrium. Investigations show:

Hemoglobin	14 g/dL	(13.5-17.5 g/dL)
Mean corpuscular volume	88 fl	80-100 fl
Leukocyte count	$6 \times 10^9 /L$	$(4.0-11.0 \times 10^9 /L)$
Platelets	210 μ/mm^3	(150-450 million/ mm^3)
Serum creatinine	89 mmol/L	(53-106 mmol/L)
Bilirubin	21 $\mu mol/L$	(2-17 $\mu mol/L$)
ALT	30 U/L	(8-20 U/L)
Serum creatine kinase	105 U/L	(25-90 U/L)
Alpha-fetoprotein	8 ng/mL	(10 ng/mL)

What is the most likely diagnosis?

- ☐ Hepatocellular carcinoma
- ☐ Focal nodular hyperplasia
- ☒ Hydatid cyst
- ☐ Hepatic adenoma
- ☐ Liver metastasis

Description

Hepatic adenoma is presented with tender liver and focal benign lesion. Normal alpha-fetoprotein and negative history of hepatic disease excludes hepatocellular carcinoma.

CHECK ANSWER

END SESSION

NEXT

Question Difficulty:

Hard

Mr. X presents with acute-onset confusion and a mild fever. He has a history of recurrent ascites accumulation due to liver cirrhosis and he had therapeutic drainage of his ascites 2 days earlier.

Hemoglobin	8 g/dL	(13.5-17.5 g/dL)
Leukocyte count	15 X10 ⁹ /L	(4.0-11.0 x 10 ⁹ /L)
Serum creatinine	160 mmol/L	(53-106 mmol/L)
Bilirubin	44 µmol/L	(2-17 µmol/L)
ALT	130 U/L	(8-20 U/L)
Serum creatine kinase	260 U/L	(25-90 U/L)
Serum sodium	130 mmol/L	(136-145 mmol/L)
Serum potassium	6 mmol/L	(3.5-5.0 mmol/L)
Ascitic cells	450/mm ³ mostly PMN	
Ascitic fluid protein	20 g/L	
Ascitic fluid protein	20 g/L	

What is the management of choice?

- ☐ IV ciprofloxacin
- ☐ Fluid and salt restriction
- ☒ IV cephradone
- ☐ Oral spironolactone
- ☒ Therapeutic paracentesis

Description

This patient has spontaneous bacterial peritonitis (SBP). It is an acute bacterial infection of ascitic fluid. It is usually a complication of liver cirrhosis.

It is manifested by rapid deterioration of liver cirrhosis (unexplained encephalopathy and worsening or new-onset renal failure) with peritoneal fluid with neutrophil count > 250 cells/ml (diagnostic).